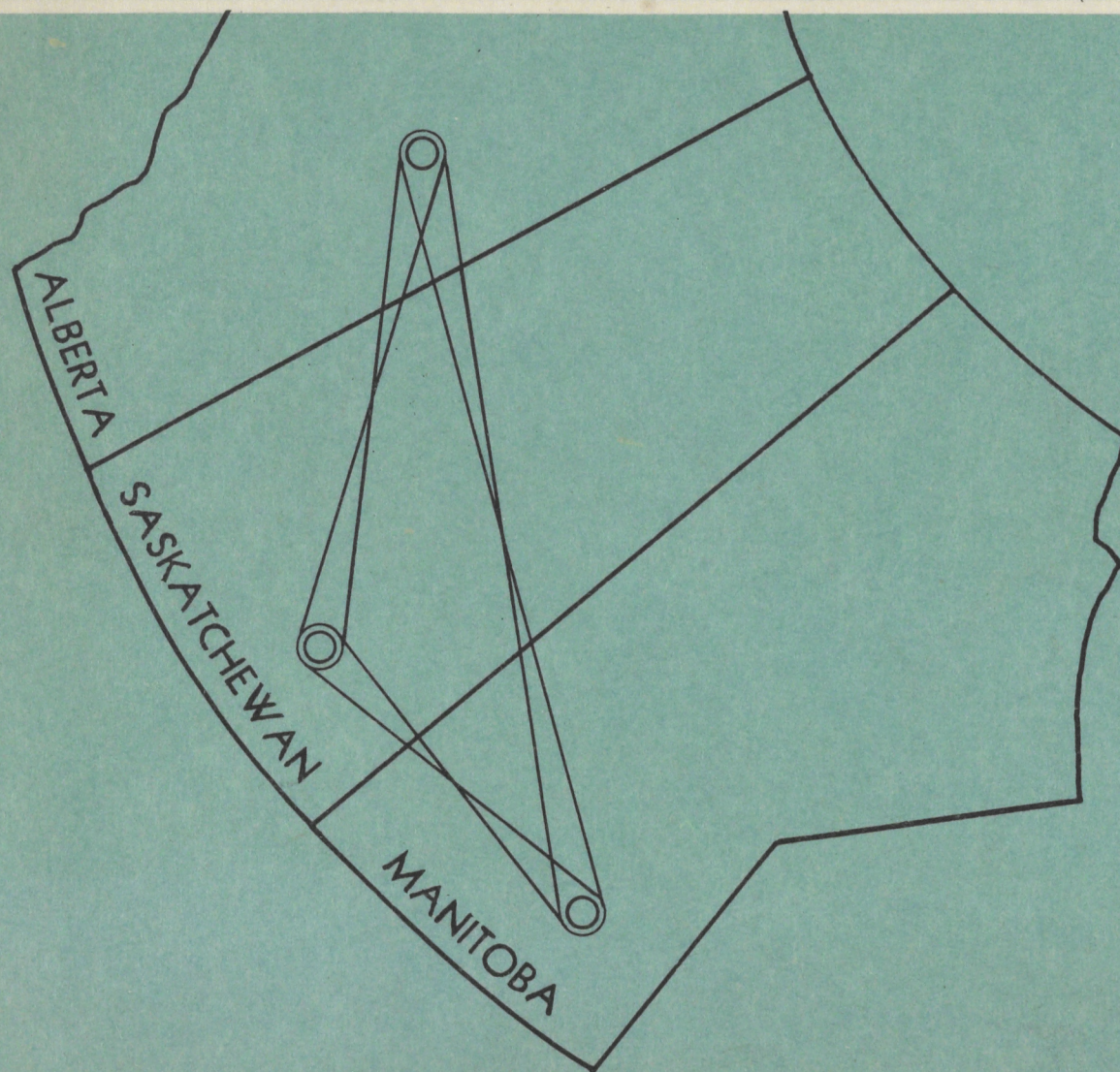


FARM KITCHENS AND UTILITY ROOMS

PREPARED UNDER THE AUSPICES OF THE PRAIRIE RURAL HOUSING COMMITTEE SPONSORED BY THE GOVERNMENTS OF THE PROVINCES OF MANITOBA, SASKATCHEWAN AND ALBERTA AND BY CENTRAL MORTGAGE AND HOUSING CORPORATION



STANDARDS

THE KITCHEN OF IDEAS

FUNCTIONAL STORAGE

THE UTILITY ROOM

PREPARED UNDER THE AUSPICES OF THE PRAIRIE RURAL HOUSING COMMITTEE SPON-
SORED BY THE GOVERNMENTS OF THE PROVINCES OF MANITOBA, SASKATCHEWAN
AND ALBERTA AND BY CENTRAL MORTGAGE AND HOUSING CORPORATION

THE PLANNING RESEARCH CENTRE, SCHOOL OF ARCHITECTURE, THE UNIVERSITY OF MANITOBA

FARM KITCHENS AND UTILITY ROOMS

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1952

FOREWORD

This bulletin, "Farm Kitchens and Utility Rooms," has been prepared at the request of the Prairie Rural Housing Committee. The authors recognized the fact that the farm house must provide features, in the work area, not common to all houses. In a sense the farm house is a small factory and must accommodate equipment and supplies for activities such as laundering, separating and preserving in addition to those for meal preparation and service.

Much of the information contained herein was acquired during a survey of farm houses on the prairies. In addition to this survey, extensive research was done concerning farm house work areas, with particular reference to storage needs, the function and placing of equipment and the general planning of the work space.

The booklet represents a collection of planning "ideas" rather than a series of model kitchen and utility room plans. It is hoped that by combining the various work centres and storage units in an arrangement best suited to the space available and to her particular working habits, each farm woman will be able to plan a kitchen and utility room to suit her needs.

Copies of the booklet may be obtained by ordering from:

ALBERTA — The Department of Agriculture, Edmonton.

SASKATCHEWAN — The Department of Agriculture, Regina.

MANITOBA — The Department of Agriculture, Winnipeg.

Other booklets in this series which can be obtained by writing to the above addresses include:

"Heating the Farm Home"

"Treatment of Farm Water Supplies"

"Farm House Remodeling"

"Fire Protection for the Farm Home"

"Farm House Planning"

AMY ROE,
Chairman, Prairie Rural Housing Committee.

INTRODUCTION

This booklet on farm kitchen and utility room planning has been prepared to help those farm families who intend to build or remodel their homes. The designs have been developed through the application of basic planning principles which served as guides in arranging better work areas.

SURVEY

In order to design work centres which would accommodate the specialized activities of a farm home, it was essential to have facts and figures representing existing conditions. The Planning Research Centre, under the auspices of the Prairie Rural Housing Committee, conducted a survey of the prairie provinces during the summer of 1948. The purpose of the survey was to obtain information directly applicable to the planning of rural homes of a type suited to the various conditions found in the three prairie provinces. This information was supplemented by statistics from the "Better Farm Homes" Competition which was sponsored by the Central Mortgage and Housing Corporation and the Home Economics Extension Departments of Manitoba, Saskatchewan and Alberta. The information gathered during the survey and from the "Better Farm Homes" Competition formed the background for this booklet on farm kitchens and utility rooms.

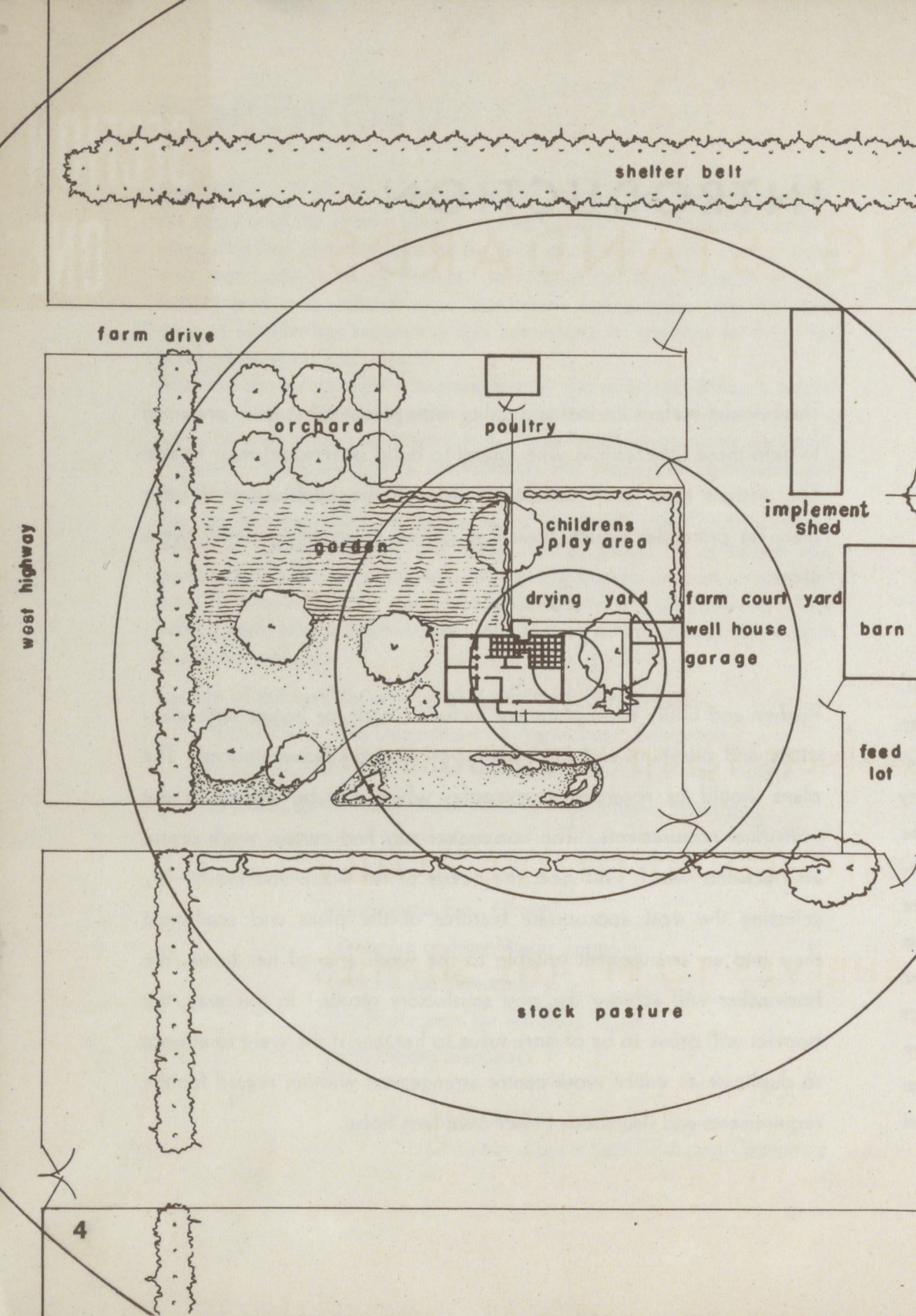
Kitchen and utility room plans are included both for homes with electricity and plumbing and for homes without these conveniences. The plans should be regarded as examples which may be altered to suit individual requirements. The homemaker may find certain work centre arrangements which will meet the needs of her home and family. By selecting the most appropriate features of the plans and combining them into an arrangement suitable to the work area of her home, the homemaker will achieve the most satisfactory results. In this way, the booklet will prove to be of more value to her than if she were to attempt to duplicate an entire work centre arrangement without regard for the requirements and limitations of her own farm home.

THE CORE OF THE FARMSTEAD

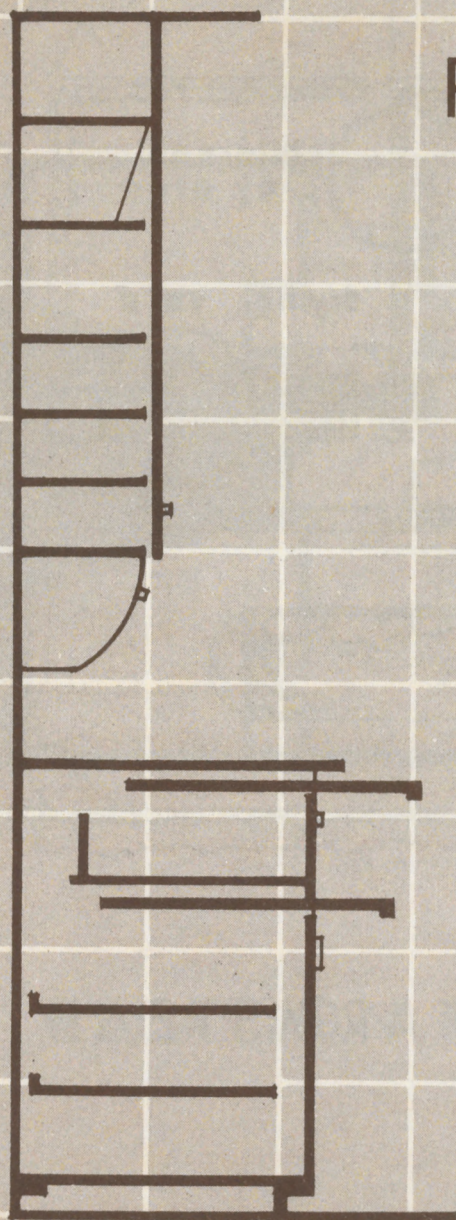
The kitchen and utility areas combine to form the "core" of activity on the farm. The kitchen has developed into an efficient food preparation area while the utility room accommodates those activities not directly concerned with meal preparation. This method of planning leaves the kitchen free for the storage of staples and perishable foods, for food preparation, cooking, serving, dishwashing and dining. The other chores such as laundering, ironing, cream separating, canning and preserving, take place in the utility room.

A plan which will satisfy the demands of every family cannot be designed. Requirements will vary in every home. The differences created by the personal preferences of the housewife, the ages of the family members, the size of the family group, the type of farming, the power and water supply, the type of fuel used and the money available, determine the extent and kind of special planning features. However, it should be remembered that financial status affects the quality and kind of equipment but does not affect the efficiency of the work pattern.

The housewife will spend most of her working hours in the work core of the home. Therefore, it should be planned for efficiency, pleasantness and convenience. If this "core" is properly planned it will save time and energy, provide ample storage space, and contribute to good health.



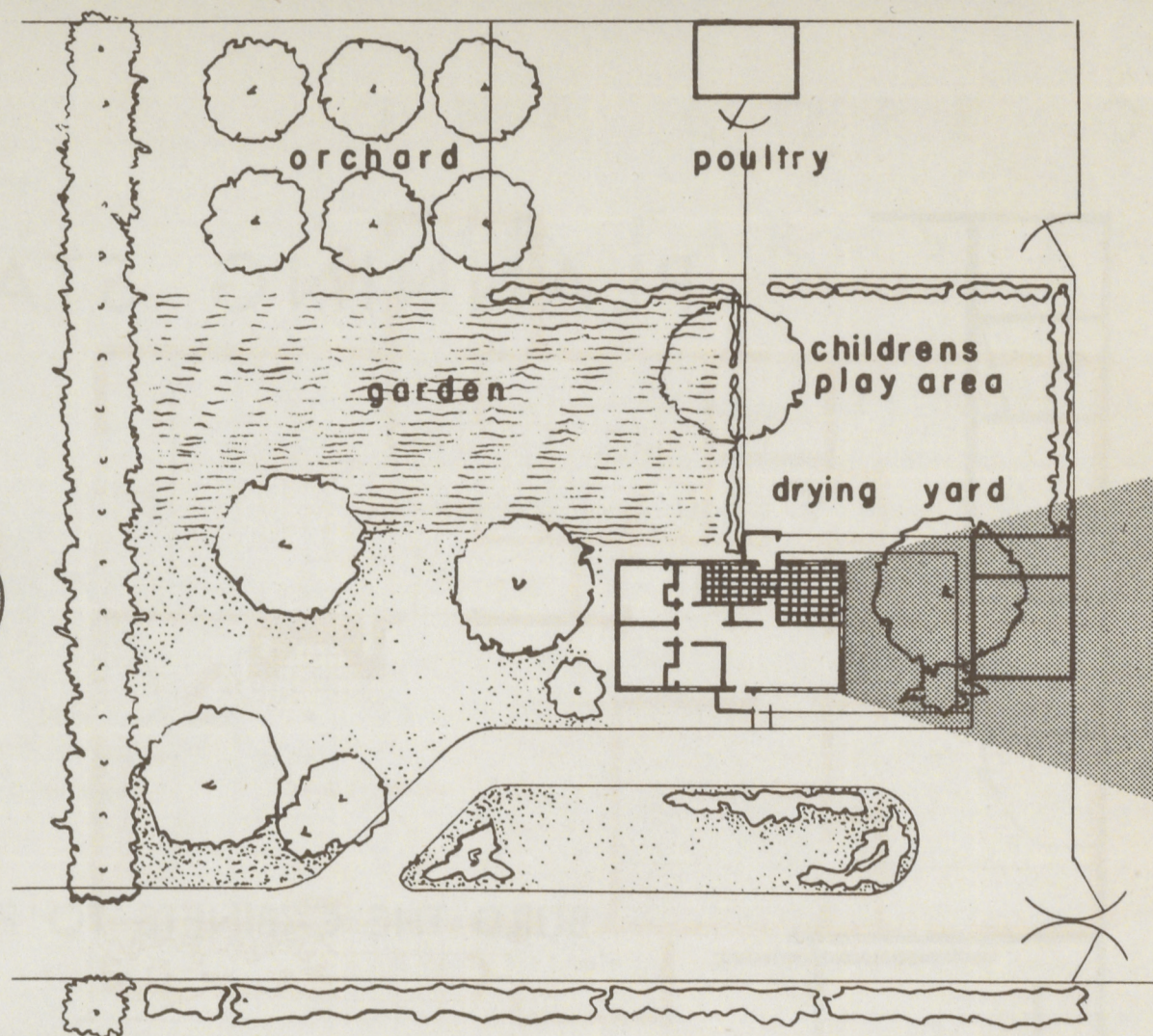
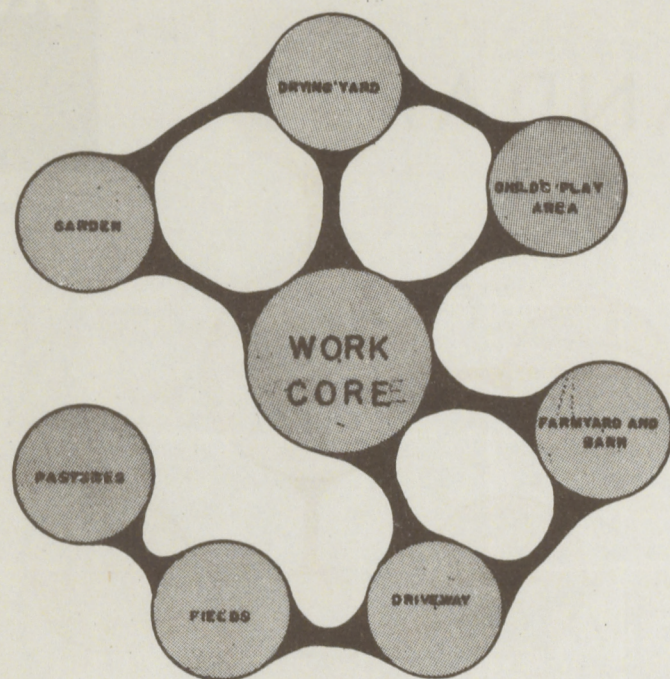
PLANNING STANDARDS



BUILD THE CABINETS TO FIT THE HOUSEWIFE

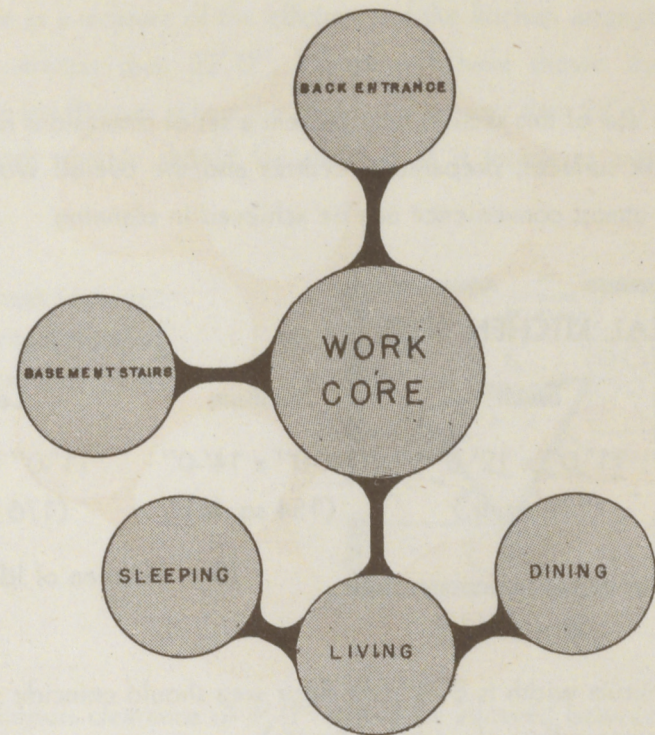
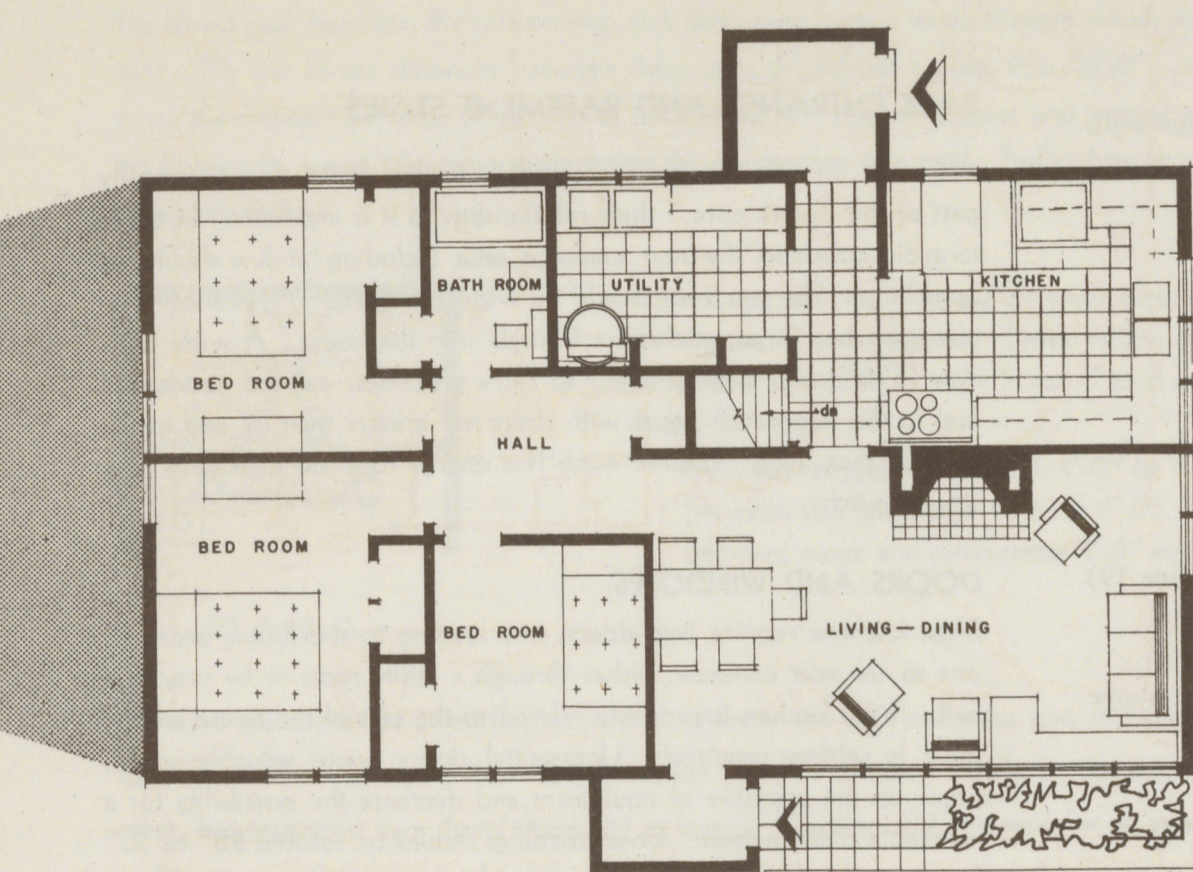
BUILD THE KITCHEN TO FIT THE FAMILY

BUILD THE SHELVES TO FIT THE SUPPLIES



RELATION OF WORK CORE TO THE FARMSTEAD

The location of the kitchen and utility areas in relation to the farmstead is important. If possible the location should permit a view of the farm buildings, the driveway and the highway. A south or east exposure for the work "core" is desirable, although it is not always possible.



RELATION OF WORK CORE TO REST OF HOUSE

The kitchen and the utility areas should be located near the rear entrance and the basement stairs. The kitchen should never become a passageway. It is better to direct traffic through the rear entrance into a central hallway or a utility room, which leads to the living and sleeping areas of the house.

PLANNING STANDARDS

The aim of this section is to present a set of dimensions for storage units, work surfaces, preparation centres and the overall work area so that the utmost convenience can be achieved in planning.

IDEAL KITCHEN SIZES

Small	Medium	Large
11'-0" x 12'-0" (132 sq. ft.)	11'-0" x 14'-0" (154 sq. ft.)	11'-0" x 16'-0" (176 sq. ft.)

(See "Kitchen of Ideas," page 19)

Minimum width is 8'-0" (the floor area should coincide with the above sizes regardless of width or length).

UTILITY ROOM SIZES

Small	Medium	Large
9'-0" x 12'-0" (108 sq. ft.)	12'-0" x 12'-0" (144 sq. ft.)	12'-0" x 16'-0" (192 sq. ft.)

The kitchen and utility areas may be rectangular, square or "L"-shaped. The rectangular room is the most convenient and efficient, for it allows the best work counter arrangement.

BACK ENTRANCE AND BASEMENT STAIRS

Although the rear entrance and the basement stairs are not actually part of the "work core," their relationship to it is important. In order to avoid accidents the rear entrance area including landing should be quite large. The rear door should be wide enough (3'-0") to allow easy passage when large articles are brought into the house. A wide stairway (3'-0") will make it easier to carry groceries, canned goods and fuel to the basement. Stairs with risers not greater than 8" and treads not less than 10 $\frac{1}{4}$ " require much less energy to climb than stairs of a steeper pitch.

DOORS AND WINDOWS

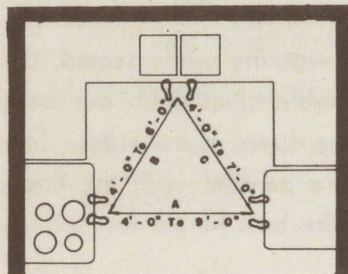
Most kitchens require two doors; one leading to the dining area and one to the rear entrance, either through a utility room or by way of a hall. If the kitchen is properly related to the rest of the house a third door is seldom required. Unessential doors waste valuable space, break up the assembly of equipment and decrease the possibility for a workable traffic pattern. Door openings should be located 28" to 30" from corners to allow space for the depth of a base cabinet on adjacent walls.

Windows

The window area should equal 10% to 15% of the floor area of the room. At least one centre should be directly lighted by a window. For reasons of safety and ease of cleaning, windows above the stove are not recommended. Windows should be 16" from the corners of the room to provide space for overhead wall cabinets on adjacent walls and should be 42" to 50" from the floor to permit the placement of equipment under the window sills.

THE LOCATION OF REFRIGERATOR, SINK AND RANGE

The direct path between the refrigerator, sink and range forms a work triangle which may serve as a measure of the efficiency of the kitchen arrangement. The sum of the distances between these units should not be less than 12'-0" and not greater than 22'-0". Experiments have shown that when the distance between these units is less than 12'-0", counter surface and storage space is insufficient; when the distance is greater than 22'-0", the housewife has to take extra steps during the preparation of a meal. Traffic through this work triangle should be avoided as it interferes with meal preparation.



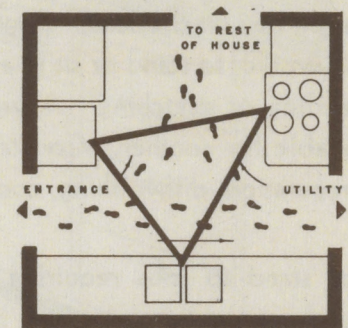
PLAN A

There should be enough space between these appliances to permit the housewife to move freely. Listed below are the recommended distances as measured from the fronts of each appliance: (see plans A and B).

Between refrigerator and sink 4'-0" to 7'-0".

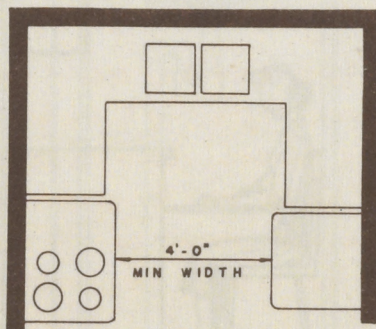
Between sink and range 4'-0" to 6'-0".

Between range and refrigerator 4'-0" to 9'-0".

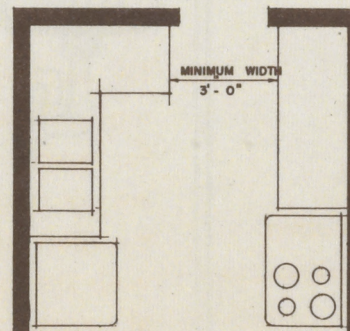


PLAN B

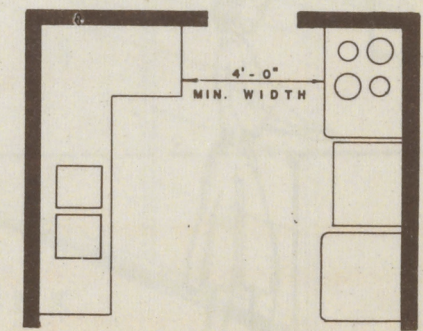
Sufficient space must be provided in front of cabinets and appliances for easy passage. A minimum clearance of 4'-0" should be allowed between appliances which are opposite each other (plan 1). This distance is sufficient for two workers. Clearance between cabinets at right angles to each other, but separated by a door, should be at least 3'-0" (plan 2). Clearance for an appliance and a cabinet at right angles to one another should be 4'-0" to permit the opening of appliance doors (plan 3).



PLAN 1



PLAN 2



PLAN 3

HOW TO DETERMINE WORK HEIGHTS

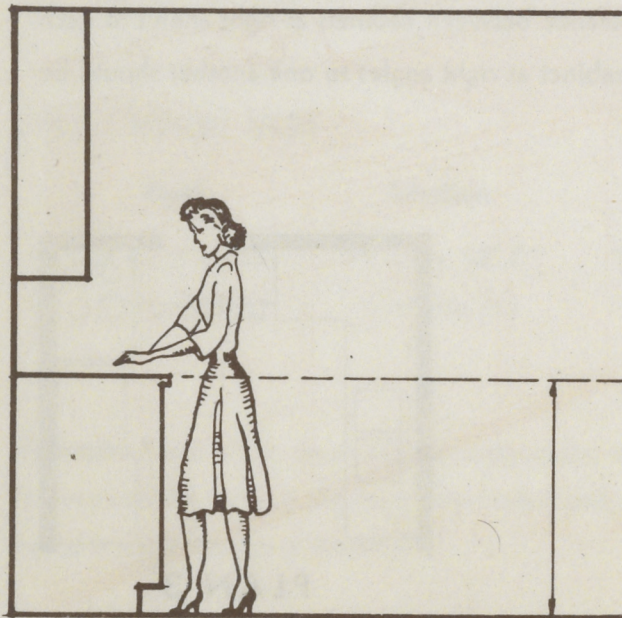
Needless fatigue can be avoided if the counter surface and sink are at heights convenient for the housewife. Constant stooping and reaching consumes energy. The standardized height of work surfaces (36") is not satisfactory for everyone. Body height should not be used as a measure, for the plump person with short arms will require a different work level than a slender person with long arms, although the body height may be the same. A good work height is one which will allow the worker to stand or sit in a comfortable position without unnecessary bending or stretching. A work height that suits one job may not be suitable for another. Counters designed for the various jobs of food preparation, dishwashing, cooking and serving will lessen fatigue.

For stand-up jobs requiring muscular action, the homemaker should stand erect and at ease, with her feet slightly apart and arms at her sides; then she should raise her forearms from the elbow until the palms of her hands rest on a table height at which she can prepare food without stooping. The distance from floor to the palms will be the comfortable

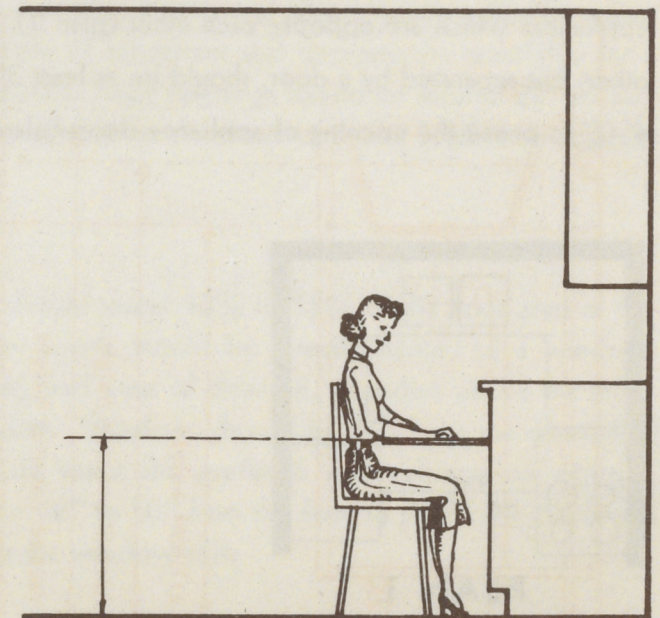
work height. In order to determine the best work heights for beating, chopping, stirring and kneading, it is recommended that the homemaker actually perform the tasks on various table heights and measure the work surface height on which each job was performed most comfortably. Since it is not possible to have a work height exactly right for each job a reasonable compromise must be made. Lower work heights may be achieved by using pull-out boards (see page 25).

To determine the most convenient level for working while seated, the homemaker should sit at ease in a comfortable chair with her back supported, her feet flat on the floor and arms down at her sides. She should then raise the forearms until they are parallel with the floor; the distance from the floor to the wrists is the best height for her lap board.

If counter construction prevents accommodating the worker with such heights, a movable lap-board table on rubber-wheeled swivel castors may be used. Such a table can be moved from one location to another whenever it is needed.



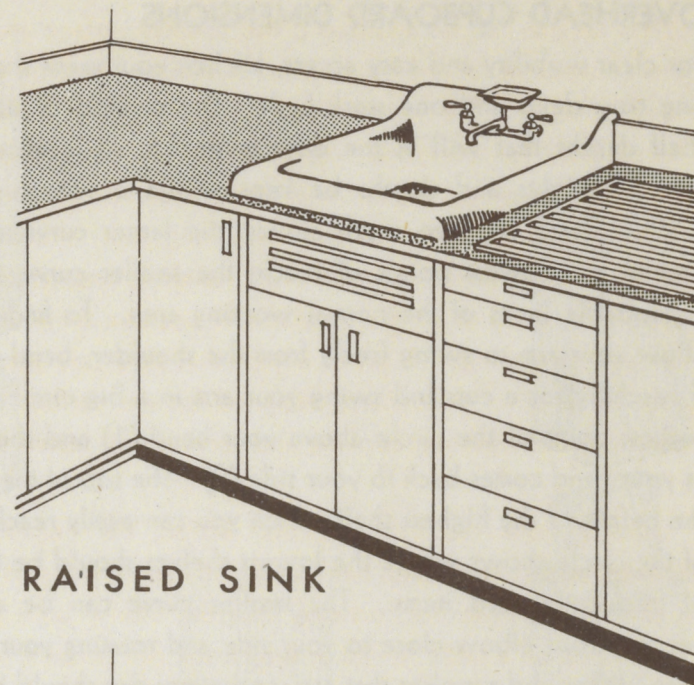
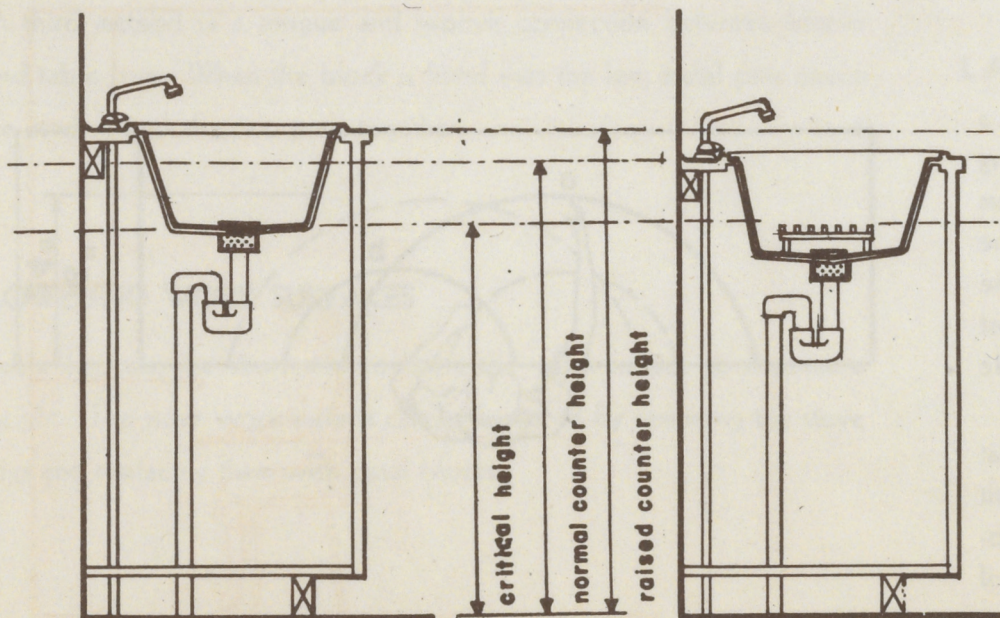
10 WORK HEIGHT STANDING



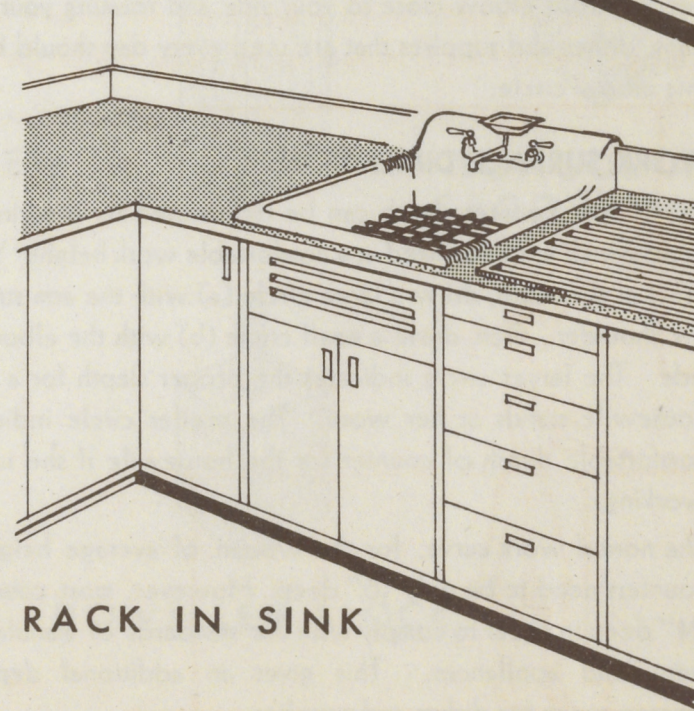
WORK HEIGHT SITTING

CORRECT SINK HEIGHTS

To determine the proper height for the sink, the housewife should stand erect and place her hands in the approximate position for washing dishes; the distance from her hands to the floor will be the correct height for the sink bottom. When the sink bottom is set at this height, the rim may be higher than the surrounding counters. The sink may be left at this height and built up as a higher counter unit (see diagram). The alternative is to set the sink rim flush with the counter height and place a wooden or metal rack in the sink to raise the dishpan to a convenient height.



RAISED SINK

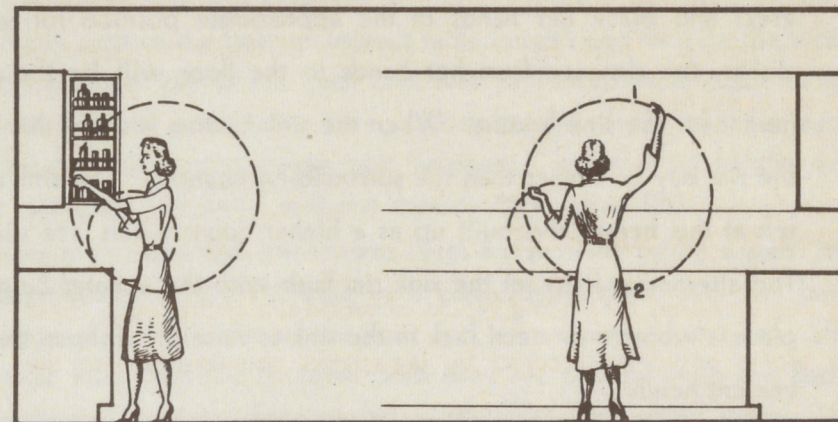


RACK IN SINK

CABINET DIMENSIONS

OVERHEAD CUPBOARD DIMENSIONS

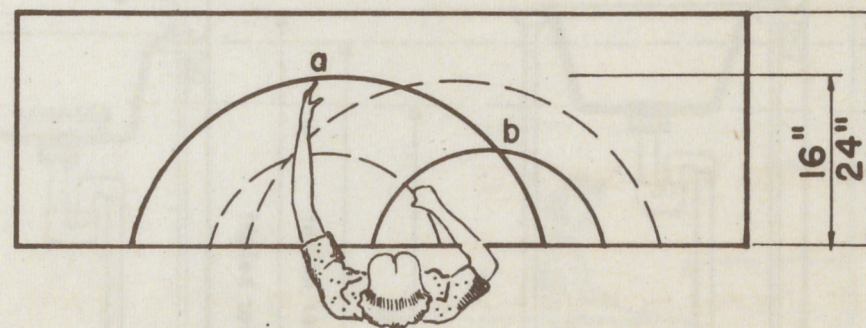
For clear visibility and easy access, kitchen equipment should be stored one row deep and one stack high. This method of storage requires shelf depths that will fit the objects stored. It is necessary that the storage heights and depths be kept within a woman's "functional" reach. There are two reach curves: the larger curve determines the highest and lowest points of reach; the smaller curve determines the comfortable limits of the normal working area. To find the first curve allow your arm to swing freely from the shoulder, bend your fingers as if reaching for a cup and swing your arm in a big circle. Measure the highest point of the circle above your head (1) and the lowest point as your hand comes back to your side (2). The top of the circle will be the height of the highest shelf which you can easily reach. The bottom of the circle shows where the lowest shelves should be for the storage of frequently used items. The smaller curve can be ascertained by keeping your elbow close to your side and rotating your forearm. The pans, dishes and supplies that are used every day should be kept within this elbow circle.



WORK SURFACE DIMENSIONS

The proper counter depth can be determined by drawing circles on a table which has been fixed at a comfortable work height. While standing erect at the table, draw a large circle (a) with the arm straight out from the shoulder, then draw a small circle (b) with the elbow close to the side. The larger circle indicates the proper depth for a counter if the housewife stands at her work. The smaller circle indicates the most comfortable depth of counter for the housewife if she is seated while working.

The normal work curve, for the woman of average height, shows that counters need to be only 16" deep. However, most counters are built 24" deep in order to comply with the standards of manufactured equipment and appliances. This gives an additional depth of 8" of storage space for dishes and supplies.



RAISING AND LOWERING TABLE WORK SURFACES

It may be necessary to raise or lower work surfaces to bring them to a convenient height. There are several methods of doing this, some of which are listed below.

RAISING WORK SURFACES

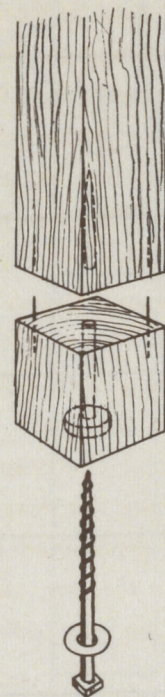
Tables may be raised by placing blocks of wood under the legs. These wood blocks could be secured by lag-screws countersunk into the blocks.

Another method of installing these blocks is by drilling holes in the table legs and inserting dowels or bolts which are fixed in the wooden blocks.

A third method is a tongue and groove connection between blocks and table legs. When the block is fitted into the leg, metal pins could be used to lock the two parts together.

LOWERING WORK SURFACES

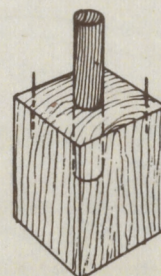
Table legs may be shortened to bring the work surface to a suitable height. The stove work surface can be lowered by removing the stove legs and replacing them with metal blocks.



LAG SCREW



TONGUE AND
GROOVE BLOCK



DOWELLED BLOCK

CROSS SECTION OF CABINETS

DEPTH OF WALL CABINET

HEIGHT OF EASY REACH

VERTICAL CLEARANCE

HEIGHT OF COUNTER

HEIGHT OF LAP BOARD

TOE SPACE

WHEN PLANNING FOR KITCHEN STORAGE

1. Determine comfortable work heights (page 10).
2. Determine the reach limits of storage at each centre (page 12).
3. Build cabinets to fit the housewife.
4. Store supplies and equipment at the centres where they are first used.

12"

14" - 18"

36"

24" - 26"

3 3/8"

1. Determine comfortable work heights (page 10).
2. Determine the reach limits of storage at each centre (page 12).
3. Build cabinets to fit the housewife.
4. Store supplies and equipment at the centres where they are first used.

DINING STANDARDS

Many women feel that a kitchen which accommodates a dining area is desirable in a farm home. With such an arrangement the housewife will be spared much of the work of serving meals in a separate dining room.

The four accompanying diagrams illustrate the spaces required for various dining arrangements. The booth type is best used in small kitchens where space is at a premium. The counter and stool arrangement may be used for breakfasts and light snacks. It has the advantage of forming part of the counter space, thus providing a greater work surface area in the kitchen. The other two sketches suggest the minimum areas required for the standard dining suites which seat four or six persons. Three possible dining arrangements are illustrated on this page. Two of them, the table and built-in benches and the stools and counter arrangement, require some specialized carpentry work; the third, the drop leaf table and chairs, requires the purchase or construction of a table which can be made smaller and placed out of the way between meals.

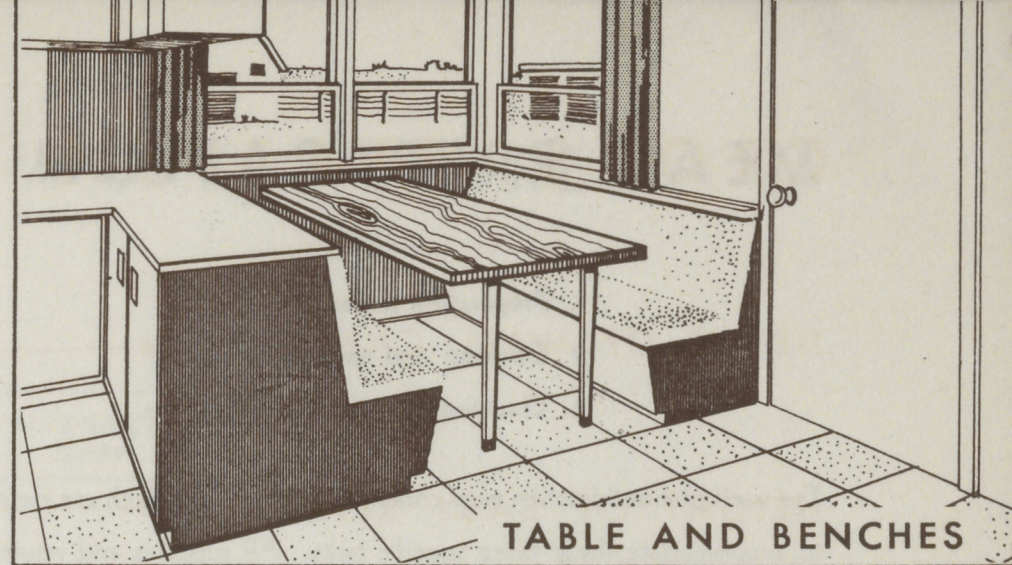
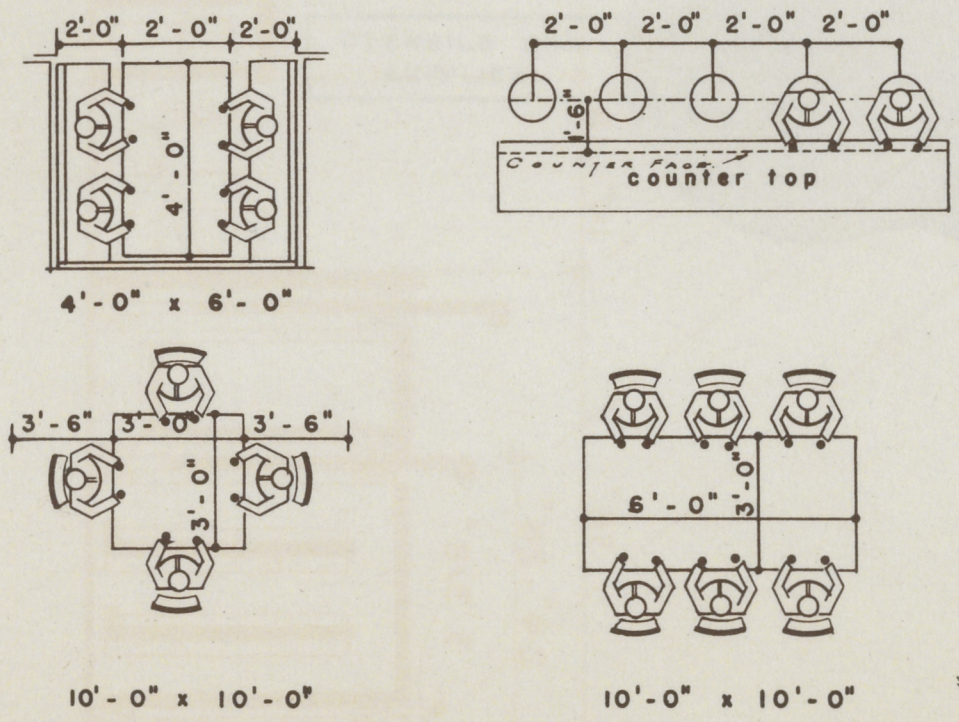
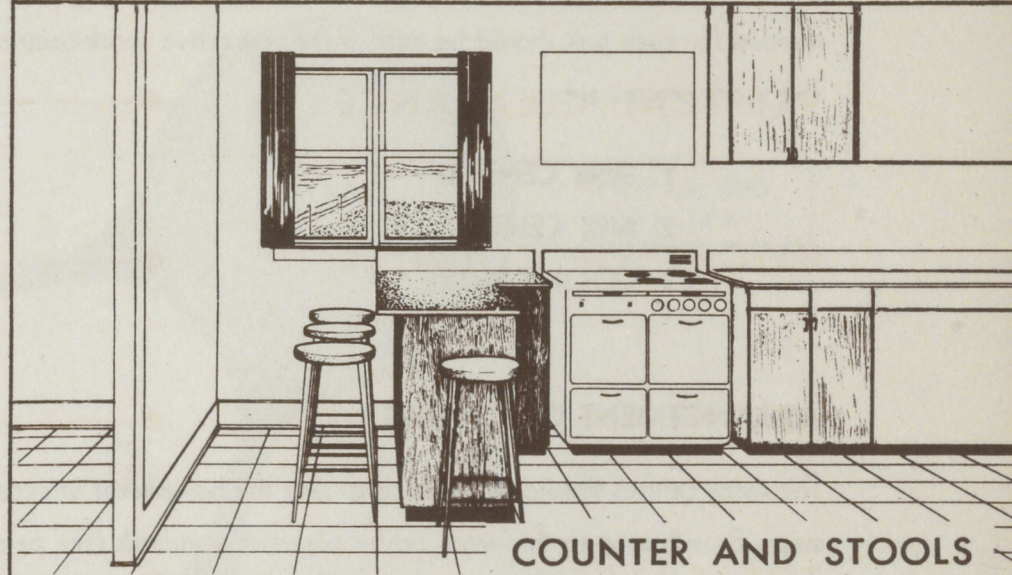
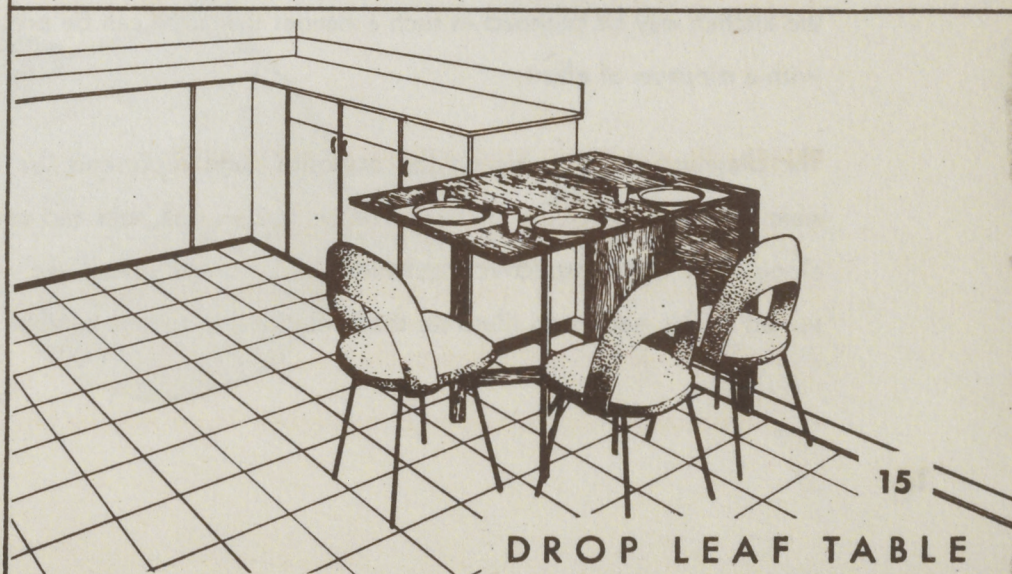


TABLE AND BENCHES



COUNTER AND STOOLS



DROP LEAF TABLE

MEAL PREPARATION INVOLVES

1. Preparation of food.
2. Cooking and serving of food.
3. Cleaning of utensils, dishes, etc.

The well planned kitchen must contain work centres which are designed to accommodate these three specific tasks. All supplies and equipment needed for each task should be kept at the respective work centres.

The work centres are:

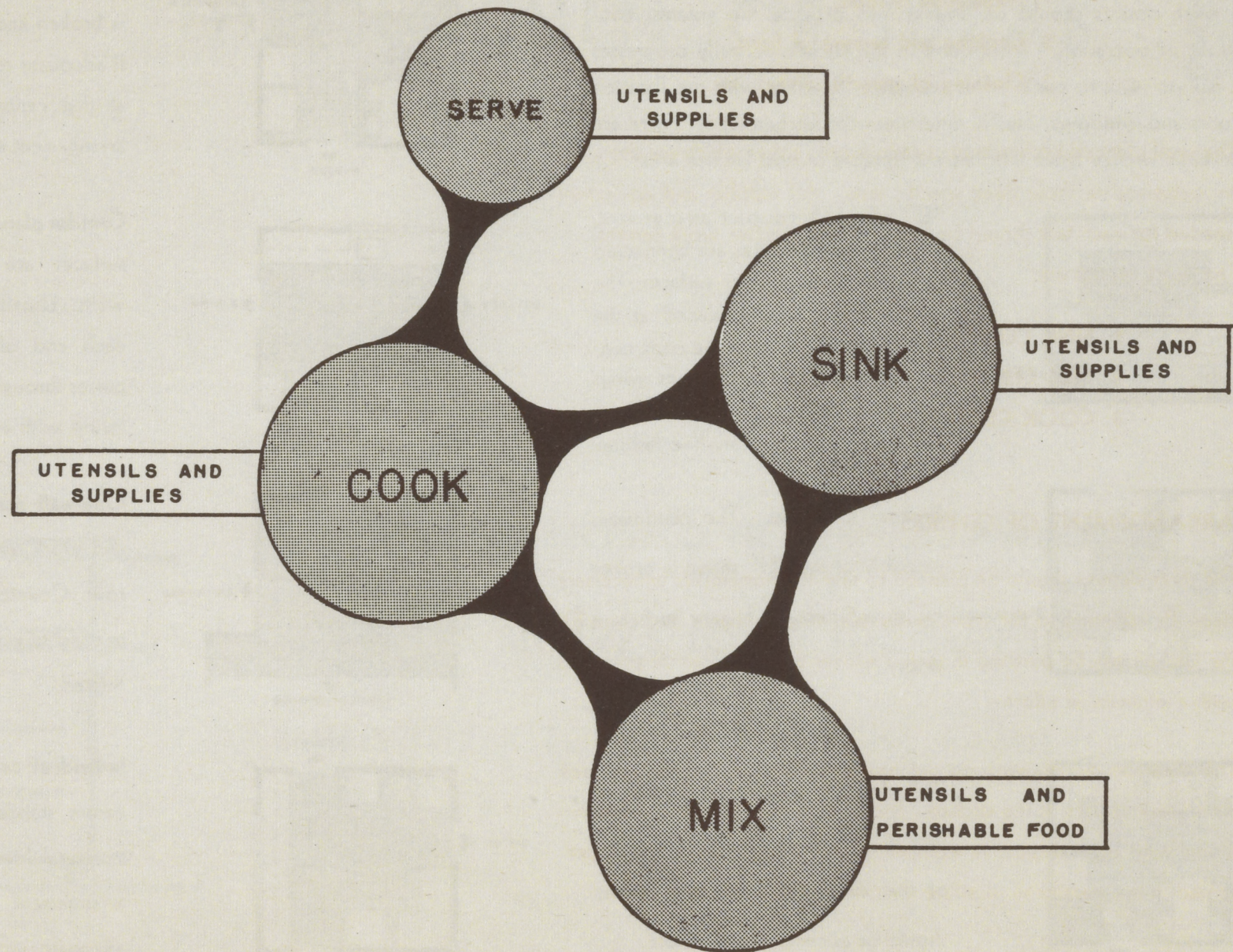
1. SINK CENTRE
2. MIX CENTRE
3. COOK CENTRE

ARRANGEMENT OF CENTRES

The three centres should be planned to save the homemaker unnecessary steps. By adhering to the work centre planning standards (see page 8), the kitchen may be planned in such a manner that food can be prepared with a minimum of effort.

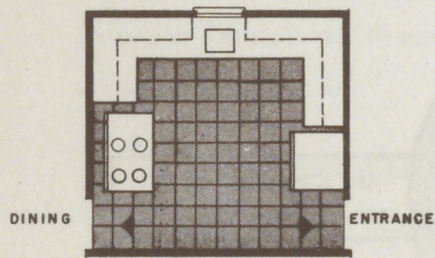
The diagrammatic drawing on the opposite page represents the three main work centres of the kitchen. The centres — **sink**, **mix** and **cook**— along with their respective equipment and storage space, are represented in this manner to illustrate their relationship to one another.

THE THREE WORK CENTRES



SEVEN BASIC PLAN TYPES

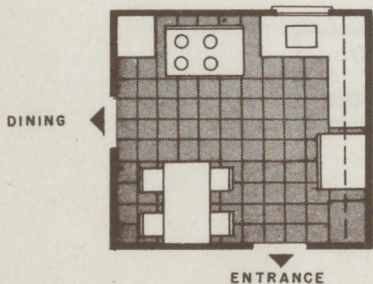
The work centres should be arranged to provide the greatest convenience of operation. Work done in the kitchen normally progresses from mix to sink to cook. This sequence, together with the location of doors and windows, usually determines the kitchen type. There are seven basic kitchen types which are adaptable to most kitchen areas.



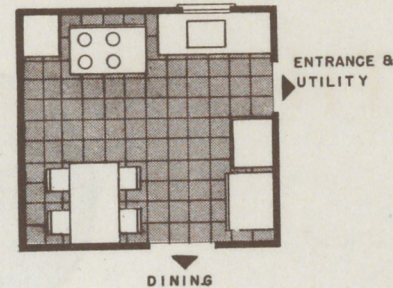
"U" plan: A compact arrangement; the three work centres are connected by a continuous counter surface. The sink centre is usually placed at the bottom of the "U" with the cook centre and mix centre forming two wings which are at least 4'-0" apart. Work proceeds in an assembly-line fashion.



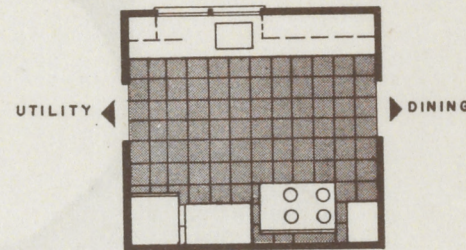
Broken-"U" plan: The continuous assembly of the "U" shape is broken by an architectural feature such as a door.



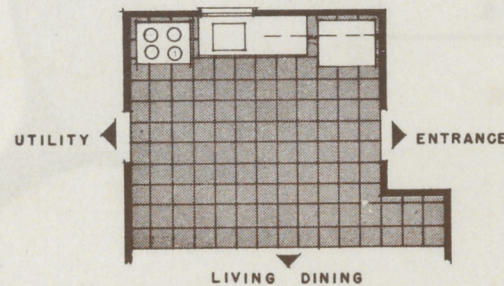
"L" plan: A continuous counter surface is built along two adjacent sides of the kitchen. The work centres should be as compact as possible.



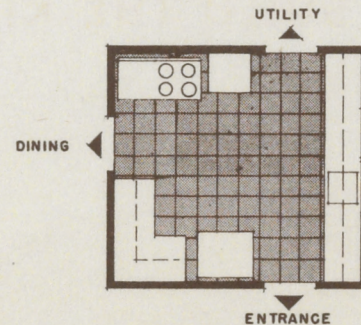
Broken-"L" plan: The work surface is broken and one centre is isolated. If adequate counter space is provided at that centre the efficiency of the arrangement is not impaired.



Corridor plan: Equipment and counter surfaces are located on opposite walls. Usually, there are doors at each end of this room and traffic passes through the work area, interfering with meal preparation.

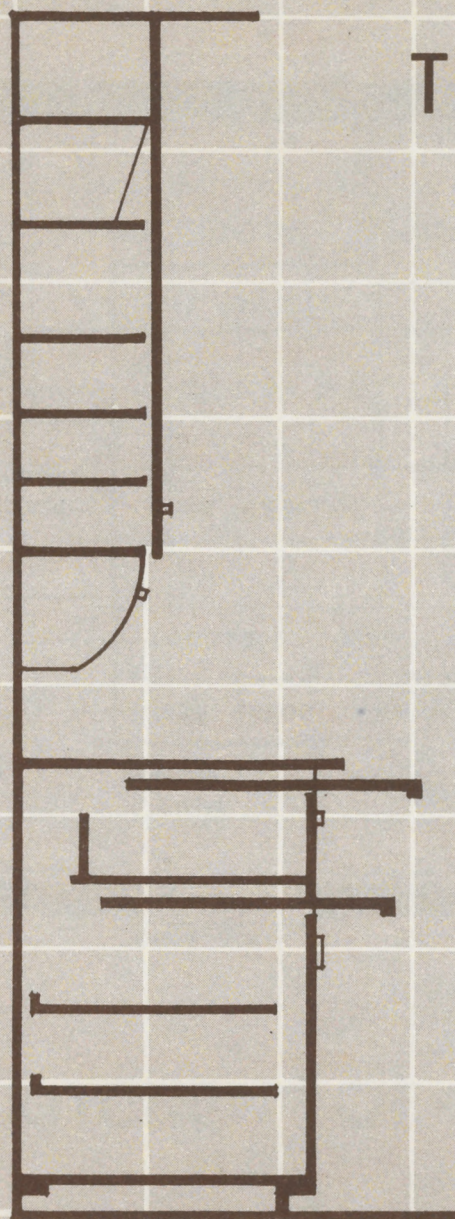


One-wall plan: Three work centres and work surfaces are arranged in a row. Counter space must be reduced in order to keep the appliances closely related.



Individual centres plan: Each major centre stands alone because of the structural features of the room. This arrangement can be convenient if adequate work surface and storage space is provided at each centre.

THE KITCHEN OF IDEAS



BUILD THE CABINETS TO FIT THE HOUSEWIFE

BUILD THE SHELVES TO FIT THE SUPPLIES

BUILD THE KITCHEN TO FIT THE FAMILY

THE KITCHEN OF IDEAS

The kitchen design illustrated in this section represents a theoretical "Kitchen of Ideas." The purpose of presenting this particular kitchen is to provide the homemaker with a plan that embodies many of the tested ideas for convenience and efficiency which have been developed in recent years of kitchen research.

The unbroken "U-shape" arrangement of counters and equipment forms a continuous work centre through which traffic cannot pass. The task of preparing food progresses smoothly from one centre to the next in a manner similar to a factory production line. Supplies and equipment are stored at the centre of first use. Cabinets are designed to suit the equipment and supplies that are stored in them. Revolving cabinets utilize corner space that is hard to use. The kitchen is designed so that all centres are integrated to form a very efficient unit for food preparation, cooking, storage and service.

Work surfaces for work done from both sitting and standing positions are provided. A pull-out lap board at the mix centre allows the homemaker to be seated while performing lengthy tasks. Counter heights are 36" from the floor. If this height is not comfortable, the homemaker should refer to the section "Planning Standards" to determine the counter height which is best suited to her own requirements.

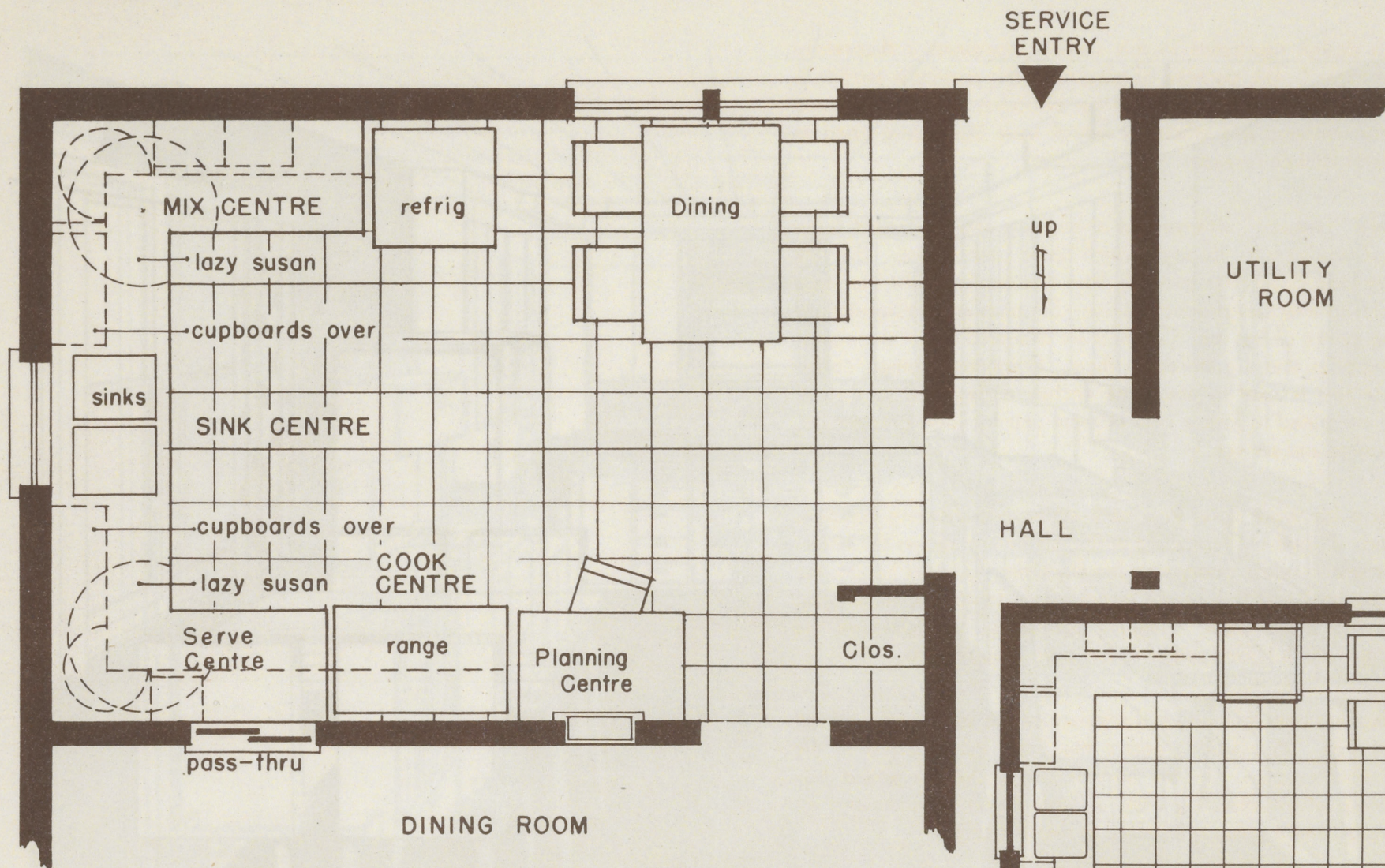
A dining area has been planned as a separate centre apart from the food preparation area. A planning centre has been incorporated in the continuous counter plan. In the non-electric kitchen, a wood box takes the place of the planning desk, a dumb-waiter is substituted for the refrigerator, and a pump is installed at the sink centre.

The kitchen is large enough (11'-0" x 16'-0") to accommodate meal preparation and dining. Other activities, such as separating, laundering and canning take place in the utility room.

It is hoped that the ideas incorporated in this kitchen will be of interest to homemakers and that they will assist homemakers with their own planning or remodeling problems.

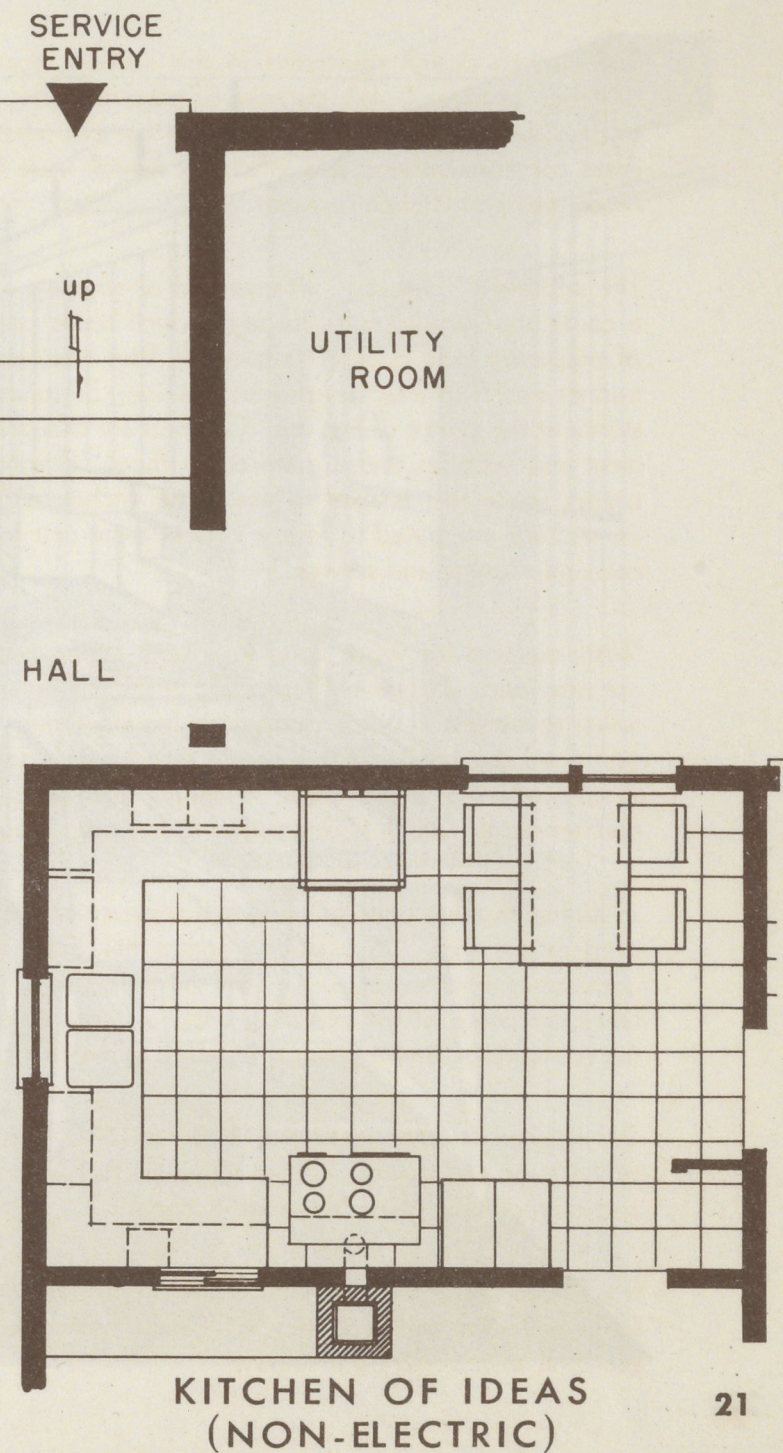
This kitchen is an adaptation of a kitchen designed by the Bureau of Human Nutrition and Home Economics, United States Department of Agriculture.

PLAN OF THE KITCHEN OF IDEAS

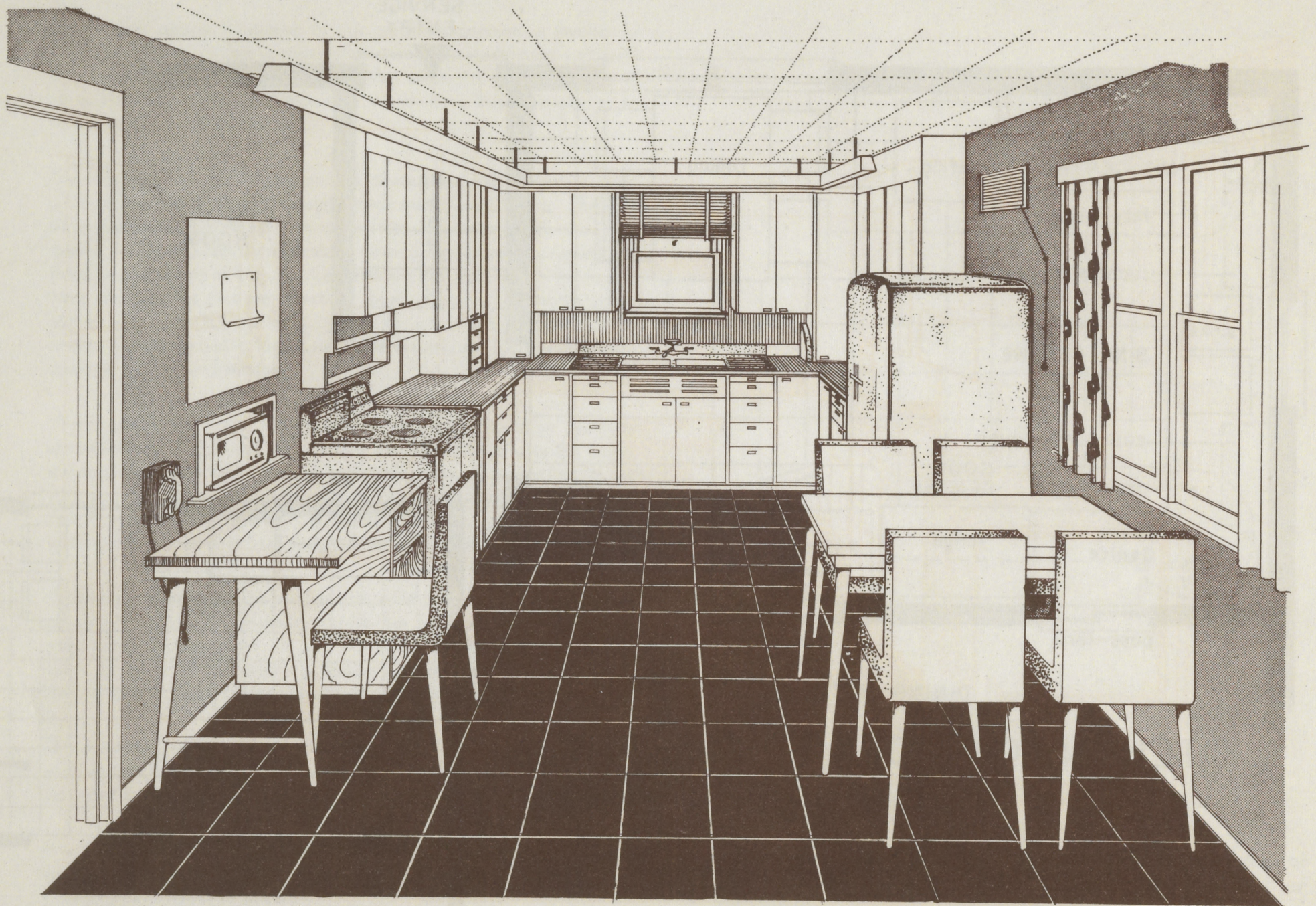


KITCHEN OF IDEAS (ELECTRIC)

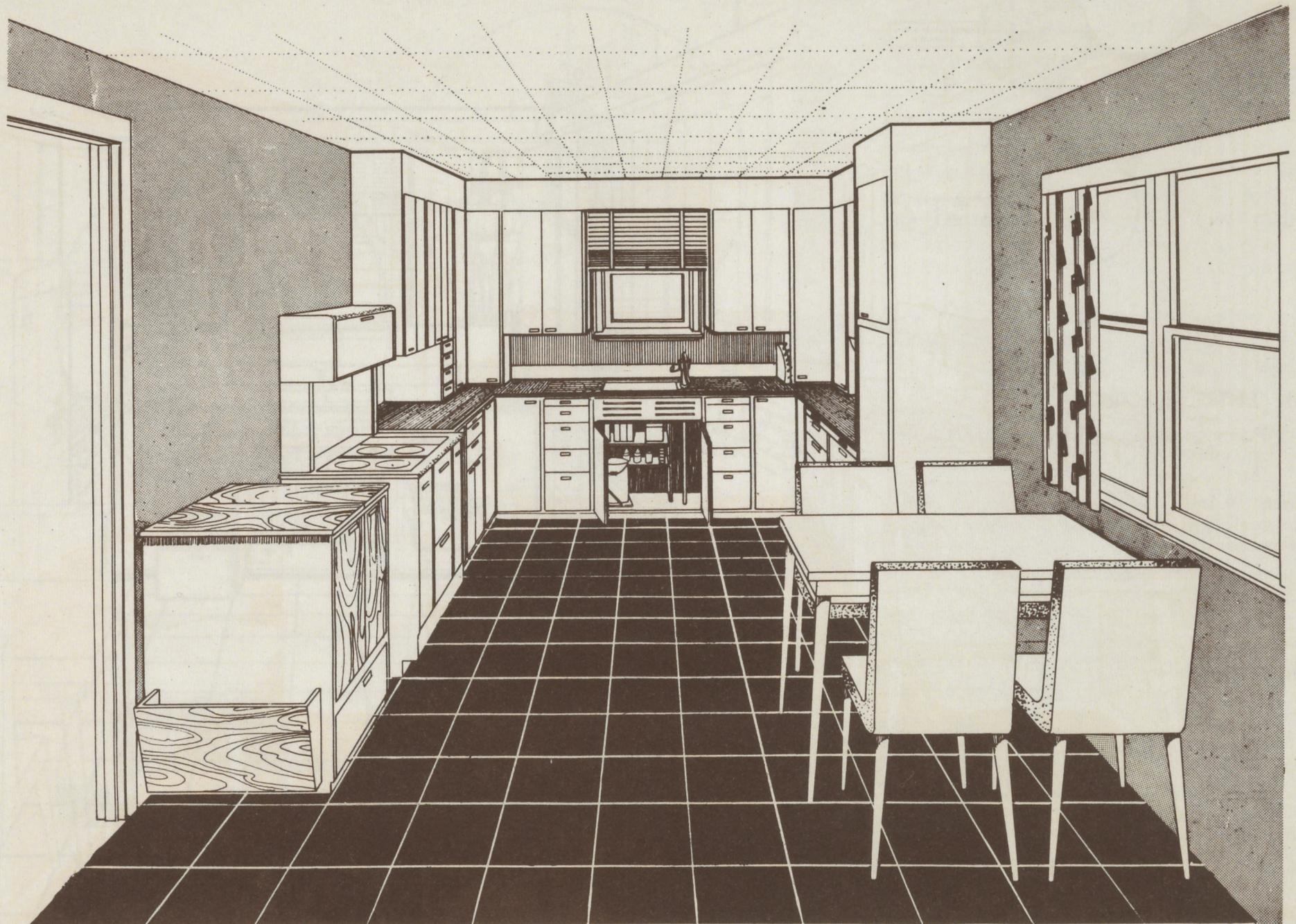
(SCALE 1 SQUARE = 1 SQUARE FOOT)

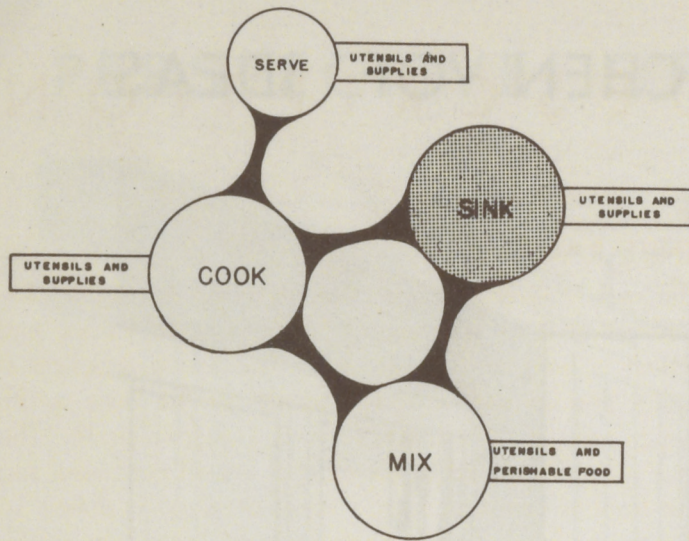


PERSPECTIVE OF ELECTRIC KITCHEN OF IDEAS



PERSPECTIVE OF NON-ELECTRIC KITCHEN OF IDEAS





THE SINK CENTRE (ELECTRIC) • •

THE SINK CENTRE (ELECTRIC)

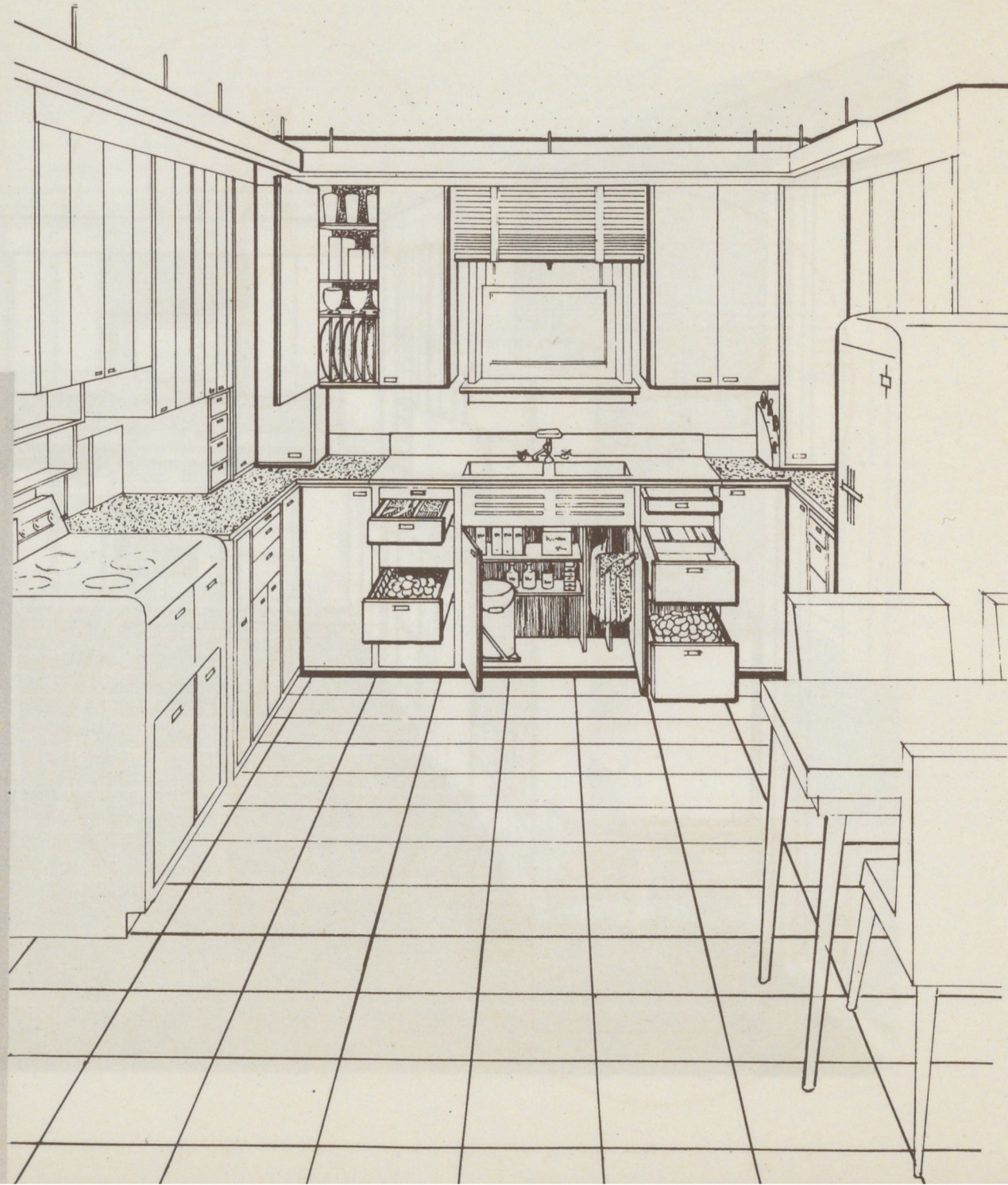
Function: Preparation of foods which first require water.
Dishwashing.
Cleaning-up.

Requirements: A sink of acid-resistant porcelain enamel or stainless steel, with a single or double bowl, with or without drainboards.

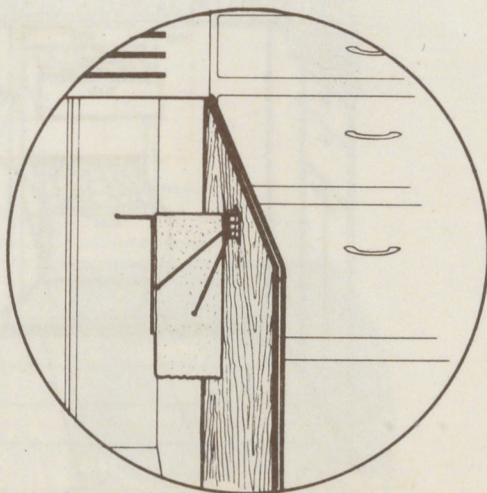
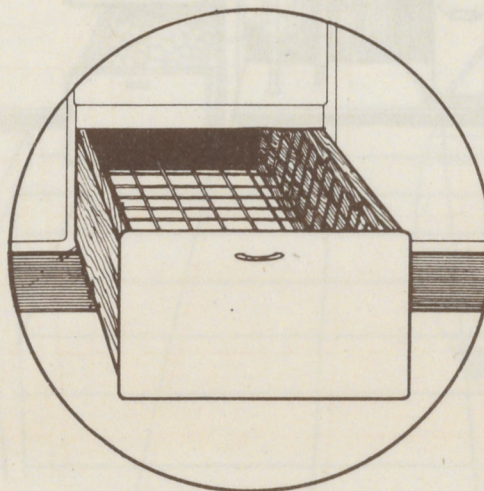
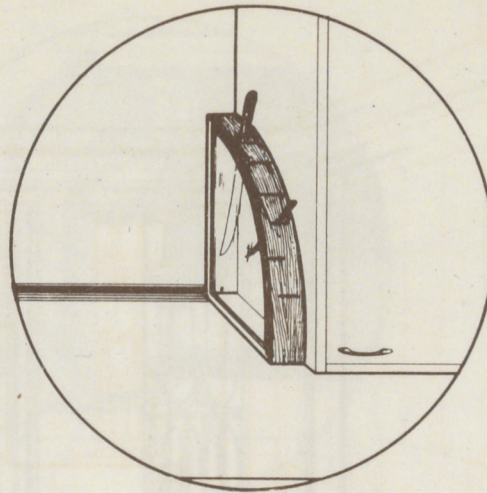
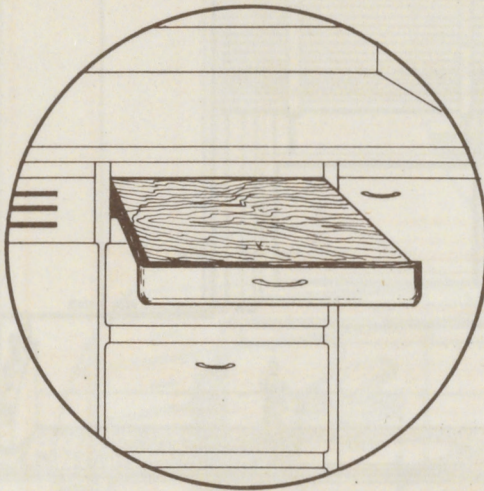
Counter space at either side of the sink — 30" on the left-hand side and 36" on the right-hand side. These dimensions, of course, should be reversed for a left-handed person.

Storage Space for: Cutlery.
Utensils for the preparation of vegetables.
Food prepared at the sink.
Dishes and glassware.
Dishwashing supplies.
Tea towels and aprons.
Garbage container.

The most satisfactory place for a sink centre is beneath a large window which provides a view of the farmyard and which admits natural light to the interior of the kitchen as well as to the sink centre itself.



STORAGE UNITS



DESCRIPTION

KNIFE RACK

This rack is made of a wood or plywood strip which has slits cut in it to accommodate various sized knives and which is bent to form an arc. The arc is attached at either end to two wooden boards of the same width which meet at right angles forming a quarter circle. The rack is then attached to the side of a wall cupboard and the front is covered with a sheet of glass or plastic so that the knife blades are completely enclosed but visible.

PULL-OUT BOARD

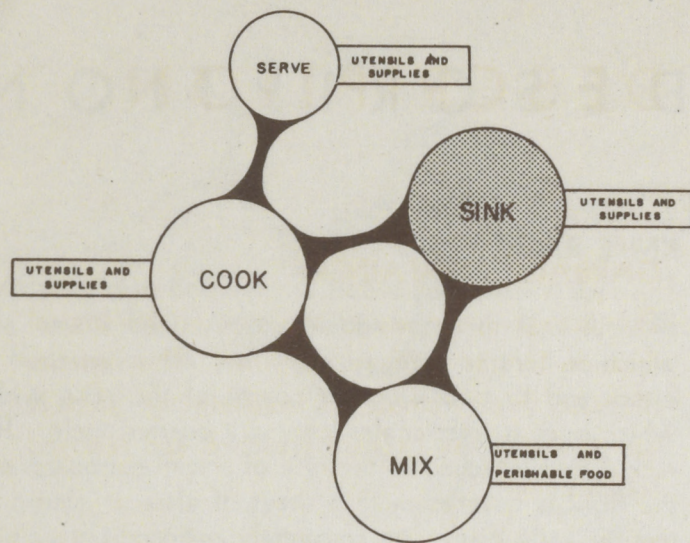
For tasks which are carried on from a sitting position, the average counter height of 36" may be too high. Instead of varying the actual height of the counter to obtain a work surface at the convenient height, pull-out boards should be installed in the base cabinets. These boards should be large enough for such tasks as cutting up meat and chopping vegetables.

TOWEL RACK

The device for hanging towels is a type obtainable in any hardware store. It consists of three rods attached to a hinge or swivel connection. The base cabinet in which the towels are stored should be vented. Perforations in the doors are one method of providing adequate ventilation.

VEGETABLE BINS

This unit is of simple construction. The removable stock size wire baskets are light in weight and easy to clean. They are hooked into a drawer which is similar in size to other drawer units, but which has been left bottomless to allow maximum ventilation.



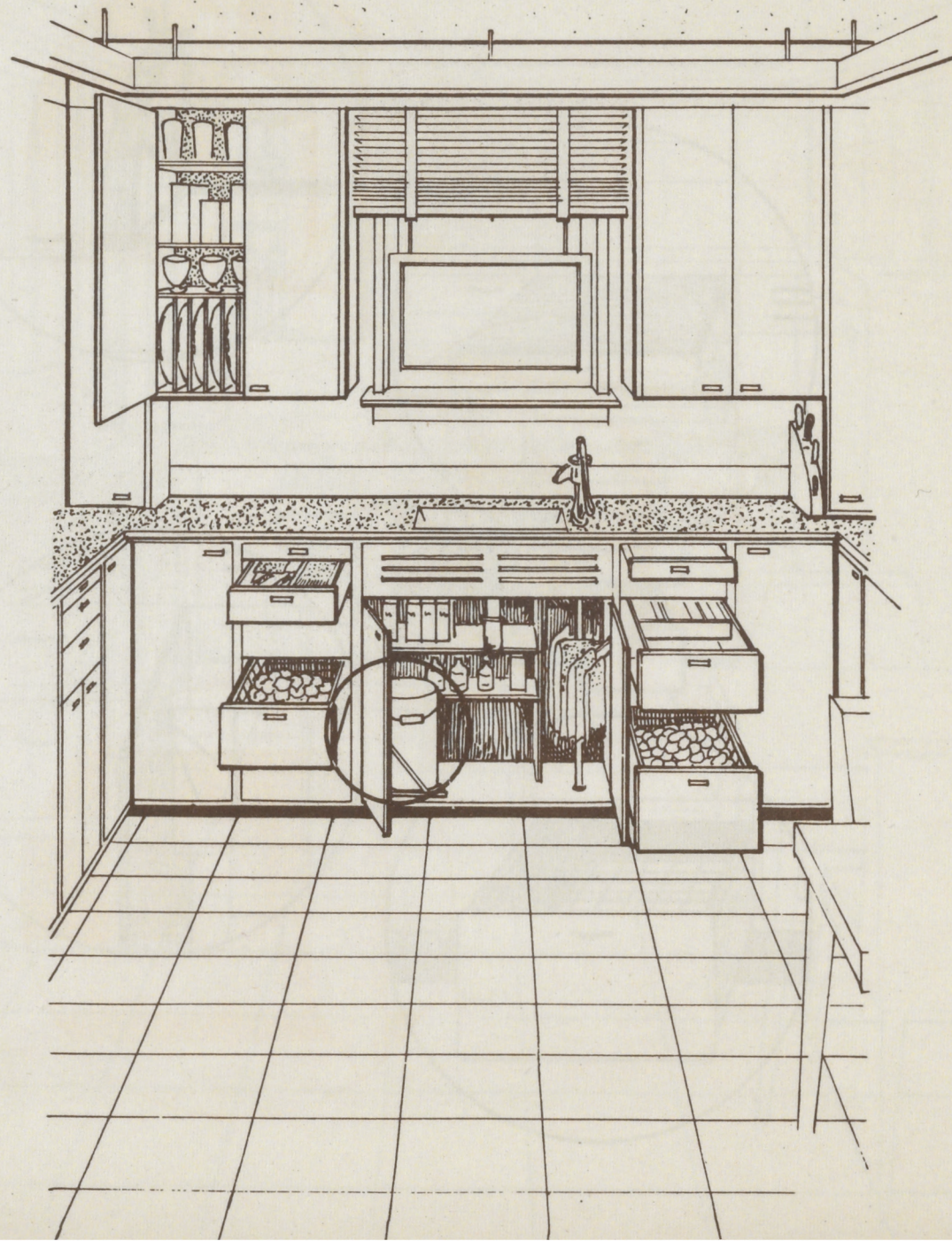
THE SINK CENTRE (NON-ELECTRIC)

THE SINK CENTRE (NON-ELECTRIC)

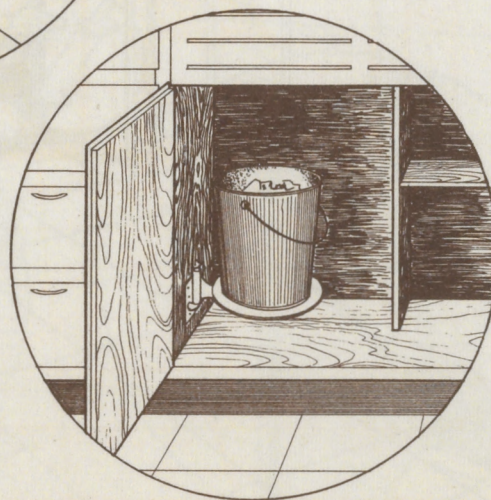
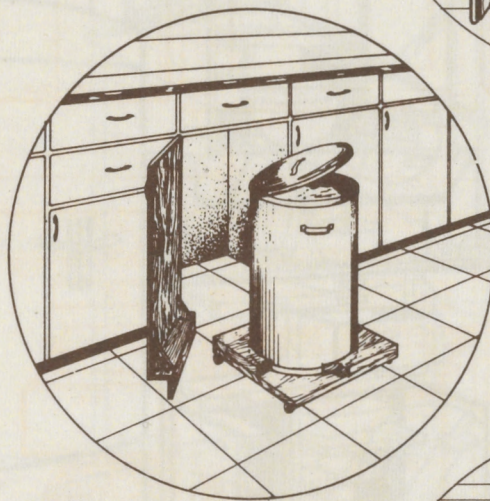
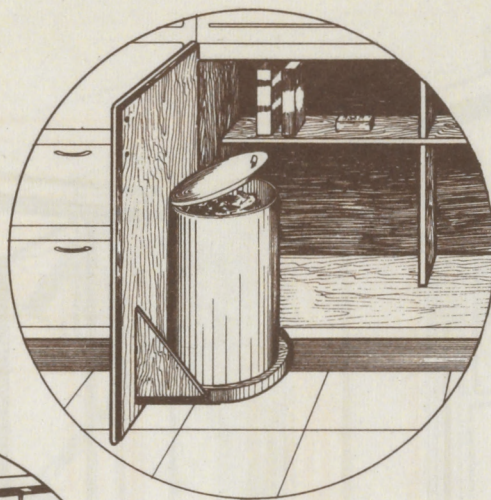
Function: Same as Electric Sink Centre (Page 24).

Requirements: Same as Electric Sink Centre (Page 24).

This unit differs from the sink centre in the electric kitchen only in the method required to bring water from the well or cistern. The pump is installed to the right of the sink and the piping goes down through the base cabinet. In this kitchen there is no hot water supply; all water must be heated on the stove in relatively small quantities. The water waste is drained away to a cesspool or simply to a pail below the sink.



STORAGE UNITS



DESCRIPTION

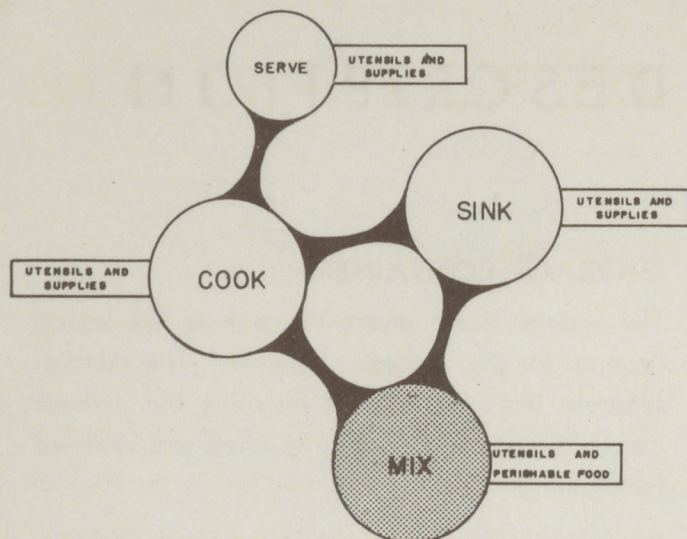
GARBAGE CONTAINERS

The storage space under the sink is the logical location for the garbage container. The sketches illustrate three methods of installing the garbage can so that it can be easily reached and removed for cleaning.

The first sketch shows a can placed on a stand which swings with the cupboard door, thus bringing the can within easy reach. The hinges on the door must be of an extra-heavy type in order to provide ample support to the door when the garbage can is full.

The second method is simply a platform on castors which consists of two layers of wood nailed together. The garbage can fits into a hole cut out of the top layer (see cut-away drawing). The container and platform occupy space under the sink. The toe space section of the cabinet is attached to the door so that when the door is opened the container may be rolled out for emptying.

The third illustration shows a metal hoop support which is connected by a swivel arrangement to a bracket on the wall of the cabinet. An old separator ring could be used for this support.



THE MIX CENTRE (ELECTRIC) • •

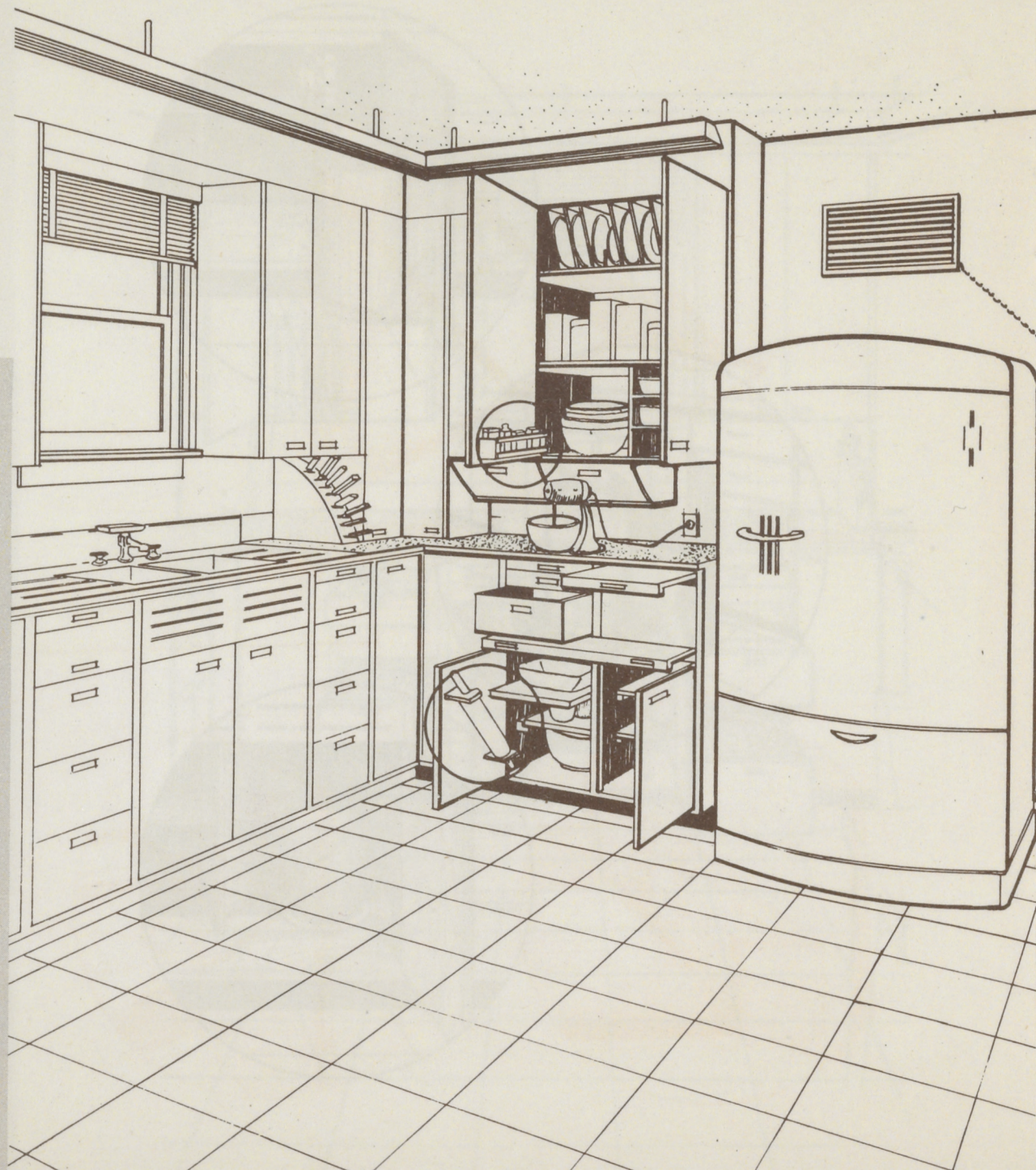
THE MIX CENTRE (ELECTRIC)

Function: Combining ingredients for baked foods.
Preparation of salads and uncooked foods.

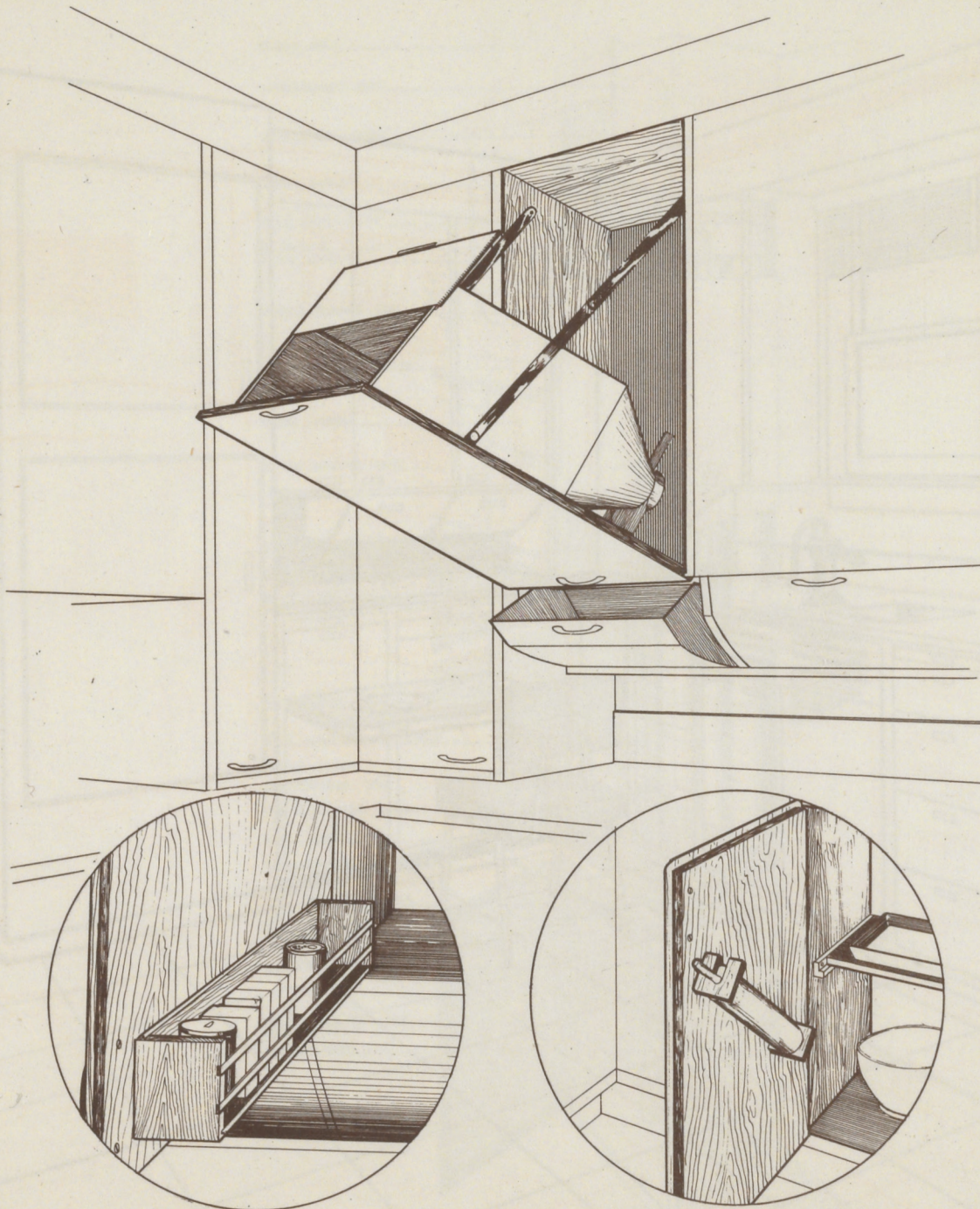
Requirements: A cold storage unit (refrigerator, dumb waiter, ice box, etc.). Counter space (30" minimum).

Storage Space for: Mixing utensils and equipment.
Refrigerator dishes.
School lunch supplies.
Staples, packaged and canned foods.
Recipes.
Electrical equipment (food mixer).

The cold storage unit should be placed near the rear entrance to the kitchen and convenient to the kitchen-dining area.



STORAGE UNITS



DESCRIPTION

FLOUR BIN

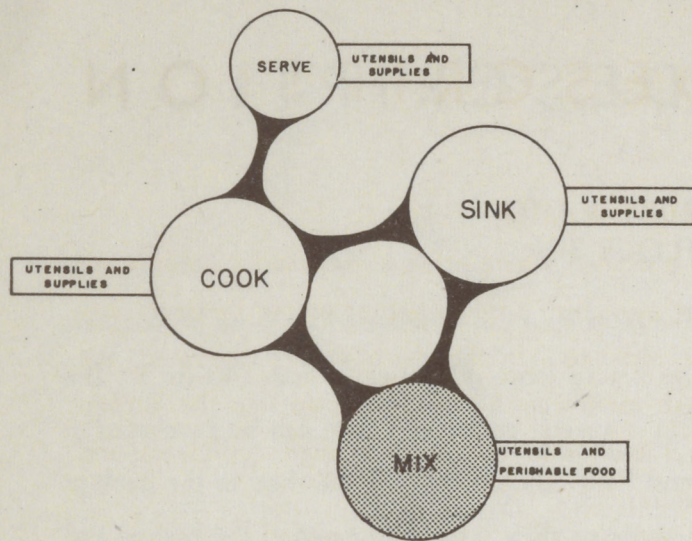
The large flour bin is designed for those homemakers who store large quantities of flour (40 lbs.). The bin is a metal container which can be purchased at most hardware stores. It is attached to the back of a wooden door which is hinged at the bottom and supported at the sides by metal braces. A pull-out metal shutter in the bottom of the large bin feeds flour into the smaller bin. The small metal tilting bin replaces the canister type flour container which uses up valuable counter space.

DOOR RACK

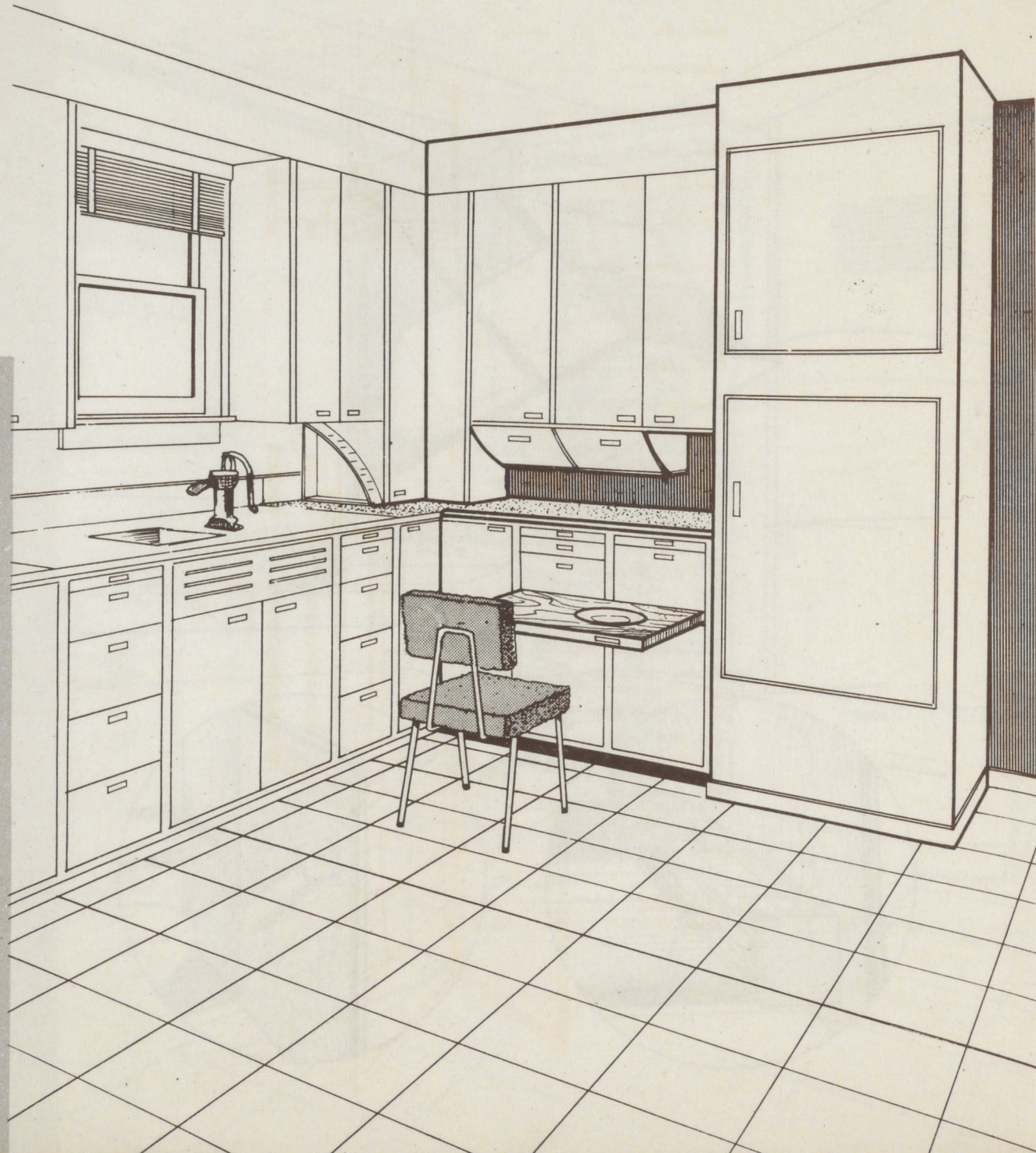
The "storage door" rack is featured for small light-weight foodstuffs such as spices and flavorings which are used at the mix centre.

ROLLING PIN HANGER

A method of hanging the rolling pin is shown in the bottom sketch. Metal hooks which screw into the doors or walls of the cabinet might prove even more satisfactory than this wooden rack.



THE MIX CENTRE (NON-ELECTRIC) •



THE MIX CENTRE (NON-ELECTRIC)

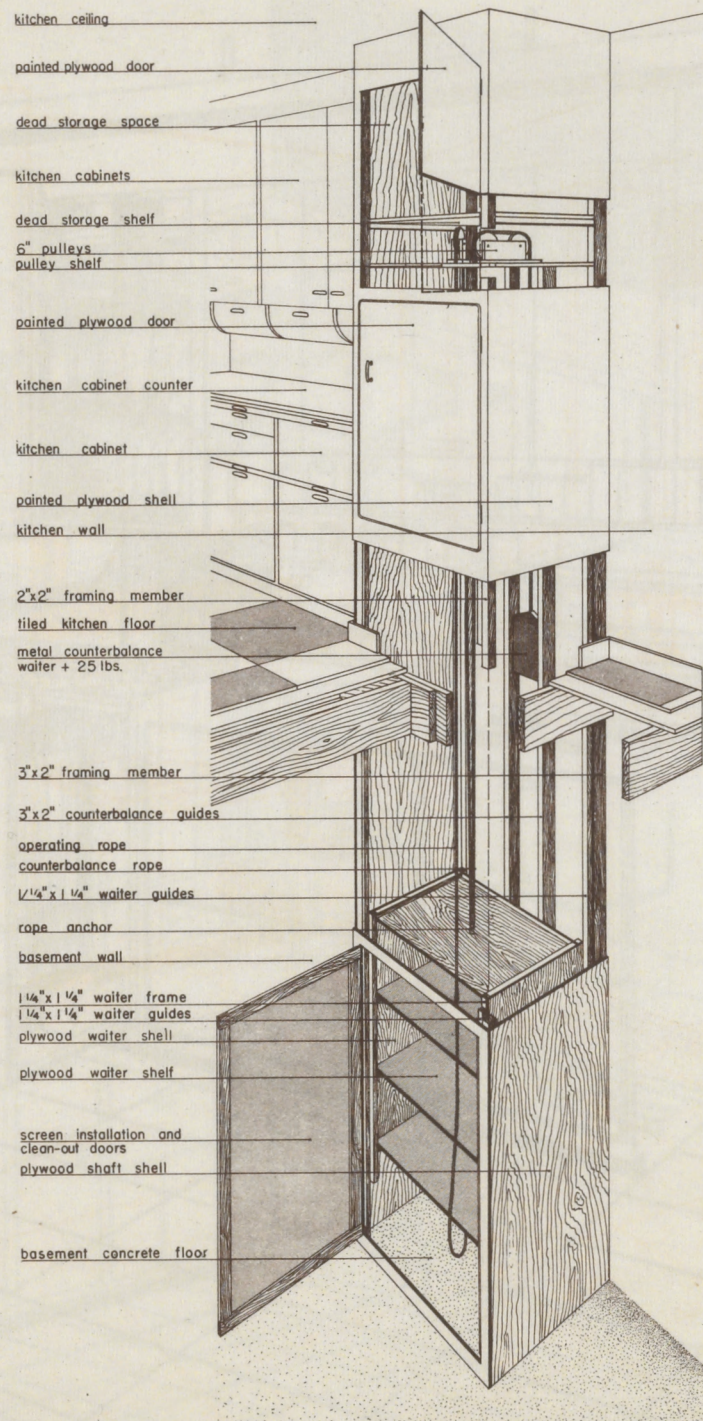
Function: Same as Electric Mix Centre (Page 28).

Requirements: Same as Electric Mix Centre (Page 28).

This centre differs from the electric kitchen mix centre only insofar as the cooling unit is concerned. The refrigerator is replaced by a dumb waiter which lowers foods to the cool basement.

The counter contains two small pull-out boards, a large cutting board, drawers for utensils, aprons and towels, and shelves for bowls and pans, staples and packaged foods (see page 28). The lap board is 24" high and the pull-out boards 34" high, providing convenient work surfaces for mixing and cutting.

STORAGE UNIT



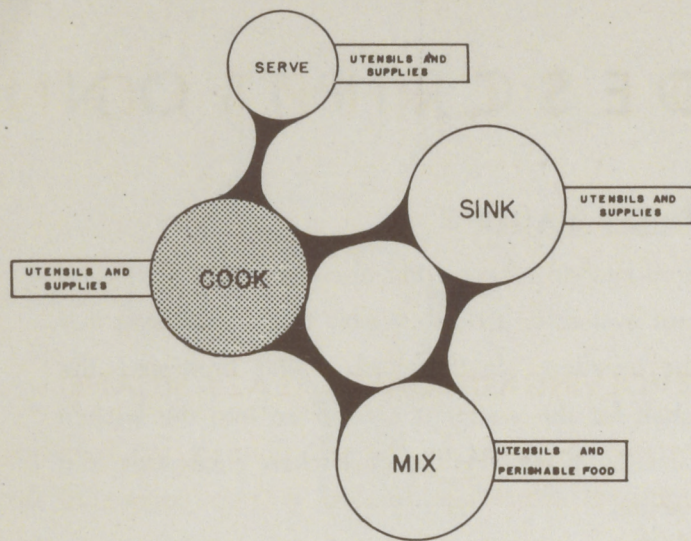
DESCRIPTION

DUMB WAITER

In a kitchen where artificial methods of cooling are not available, a dumb waiter to the basement may be installed. In the dumb waiter illustrated, the shaft for the waiter is carried up into the kitchen and built into the other kitchen cupboards and fixtures.

Two ropes are used in the waiter's operation: one is for the counter-balancing weight, the other is the operating rope for raising and lowering the waiter. One end of the counter-balancing rope is connected to the metal counter-balance which rides up and down a wooden shaft; the other end is connected to an iron ring in the top of the waiter. The operating rope is also attached to a ring on top of the waiter, but it runs up the shaft over a separate pulley and down the shaft to where it is attached to the bottom of the waiter. There should be enough slack left in the operating rope to allow it to be grasped easily when raising the waiter.

A piece of metal, weighing about 25 lbs. more than the waiter, which will slide up and down the weight shaft without binding will be satisfactory for the counter balance. It should be such that small weights can be easily added to it or taken from it.



THE COOK CENTRE (ELECTRIC)

THE COOK CENTRE (ELECTRIC)

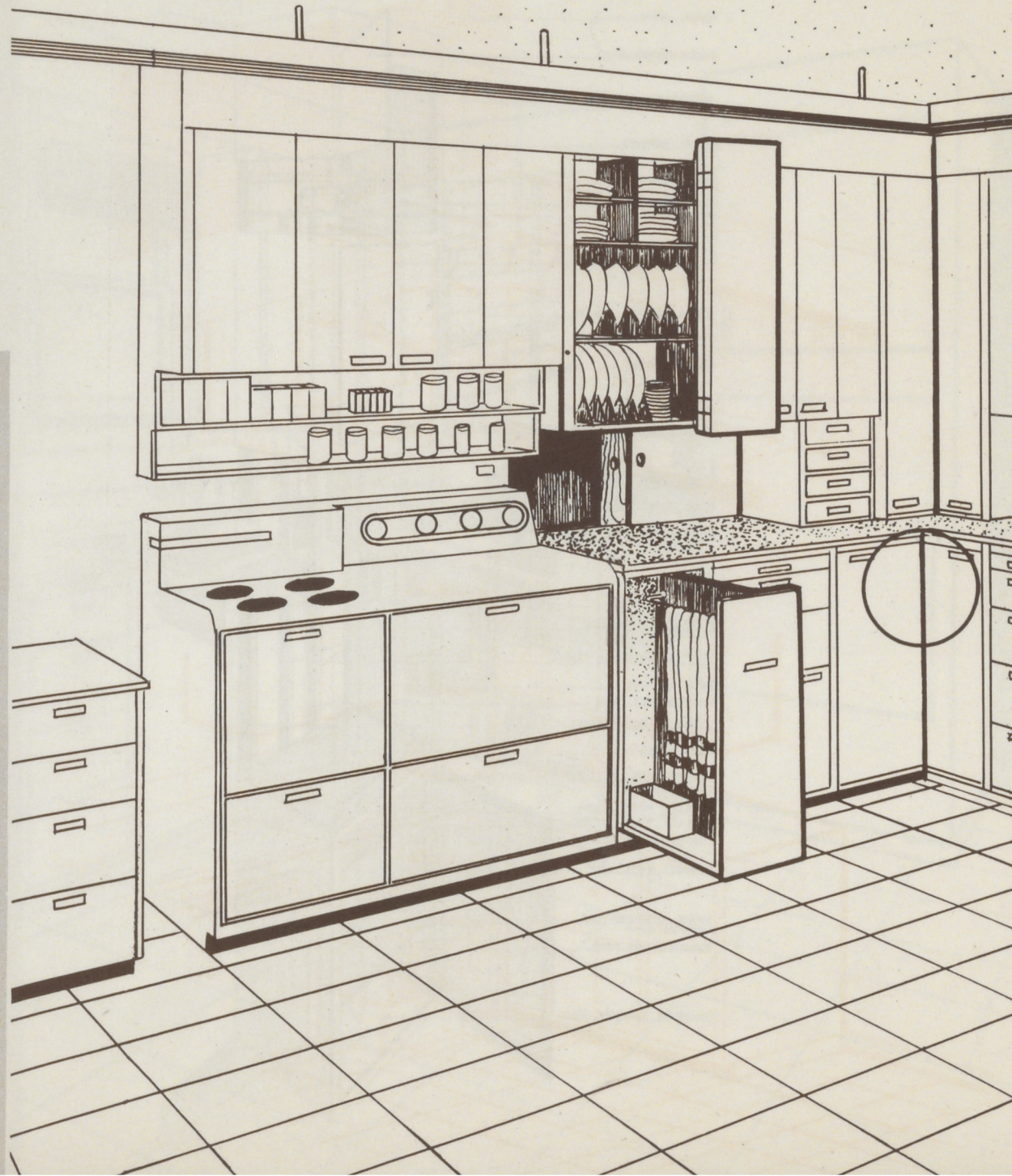
Function: Cooking and baking of food.

Requirements: An electric range.

Counter space for food preparation or for serving. This work surface should be on the side of the range which is nearest the dining area. A minimum surface of 24" is recommended.

Storage Space for: Utensils and equipment used at the range.
 Canned food and supplies used first with boiling water.
 Serving dishes and platters.
 Cutlery.
 Electrical equipment (toaster, waffle iron, coffee maker).
 Condiments.

The clearance between the stove and overhead cupboards should be such that steam or splashing grease will not harm the finish of the cupboards.



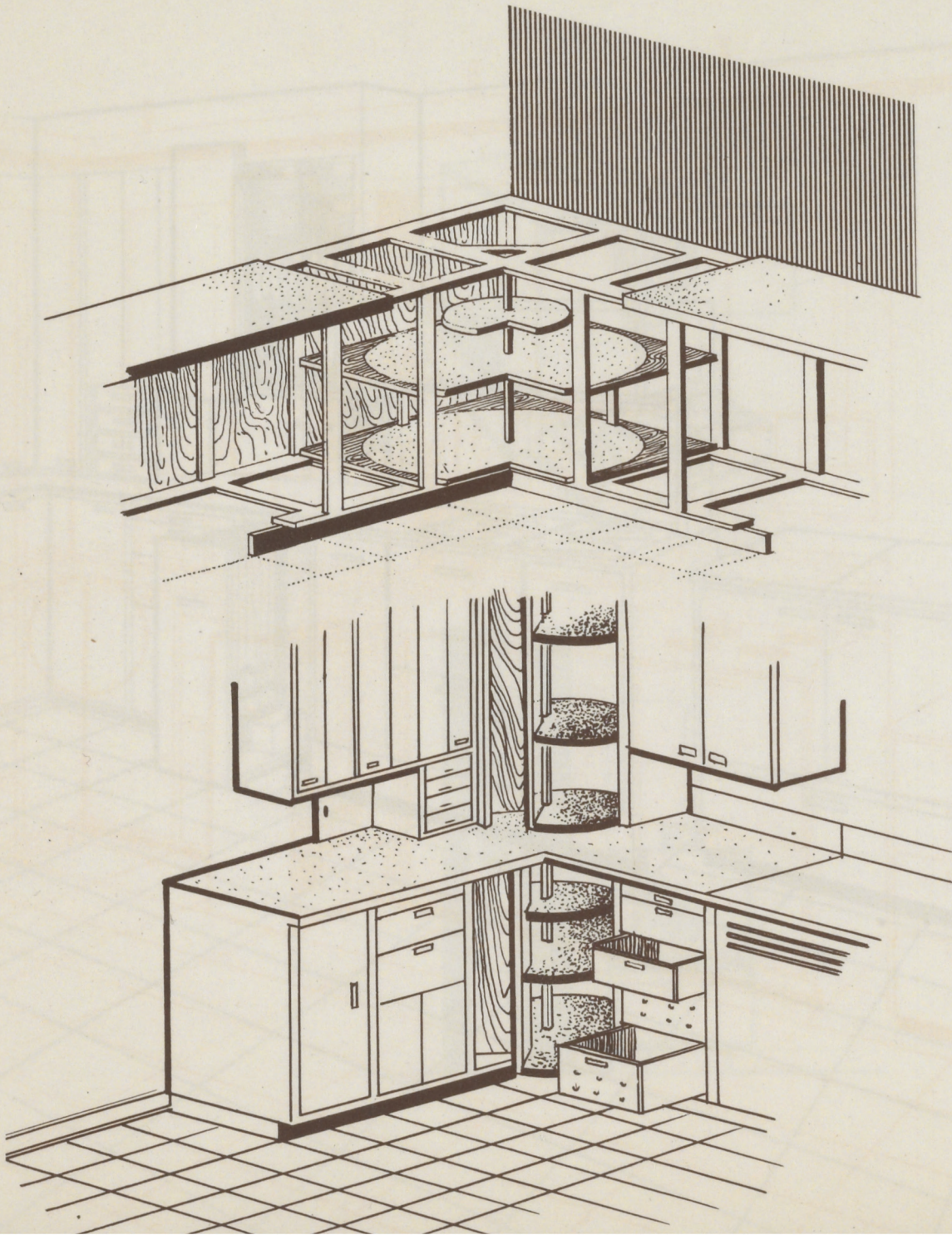
• • • • • STORAGE UNITS

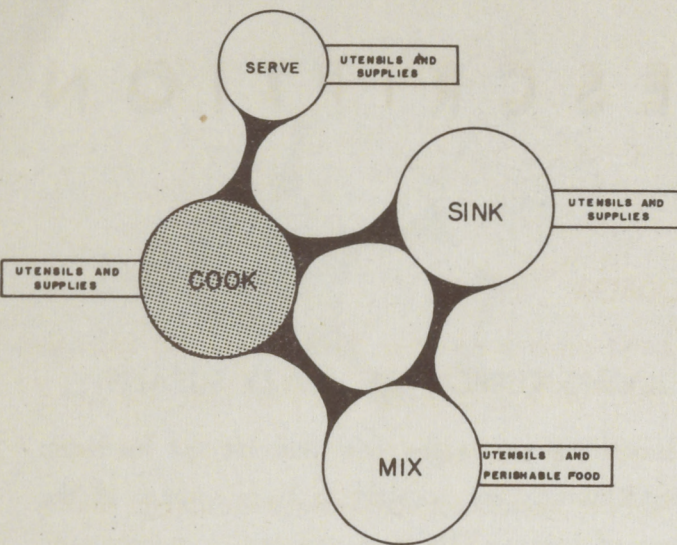
DESCRIPTION

REVOLVING CUPBOARDS (LAZY SUSANS)

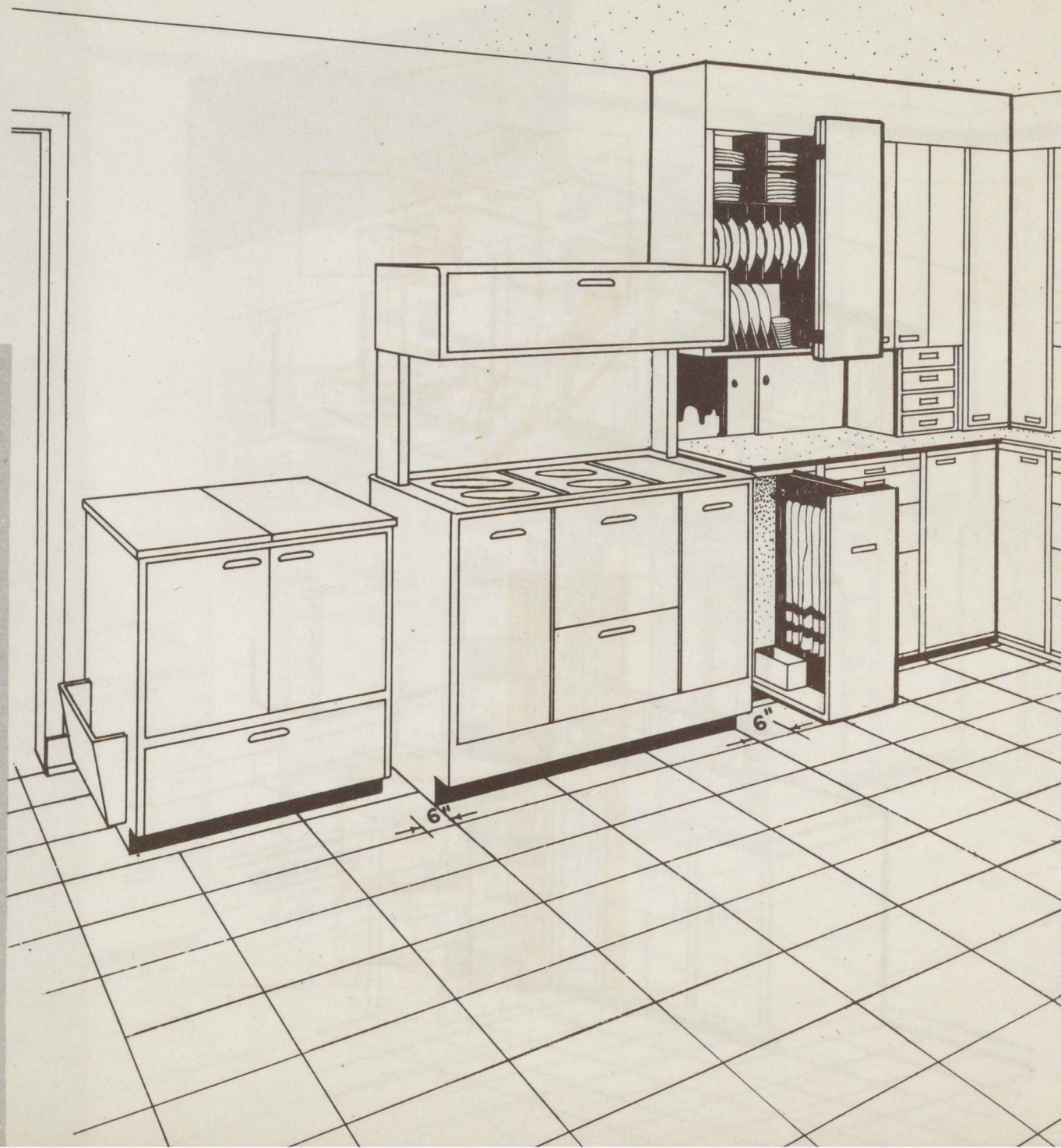
The two drawings on the left illustrate the revolving cupboards which are located in two corners of the "Kitchen of Ideas." The top drawing is diagrammatic and shows the cabinet with the doors removed, revealing the large circular shelves. The bottom drawing illustrates the completed cabinet with the shelves partly exposed.

This type of cabinet makes ingenious use of space which would not ordinarily be used. Not only is considerable storage space gained in this way, but the objects stored in the cabinet are more accessible since it revolves in both directions, bringing all parts of the shelves within easy reach.





THE COOK CENTRE (NON-ELECTRIC)



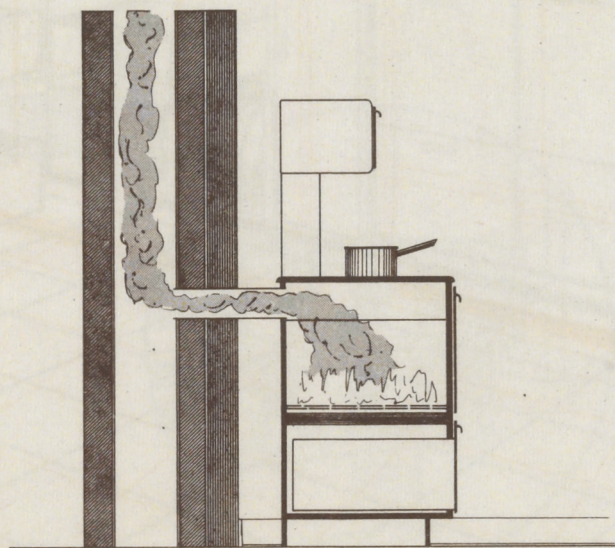
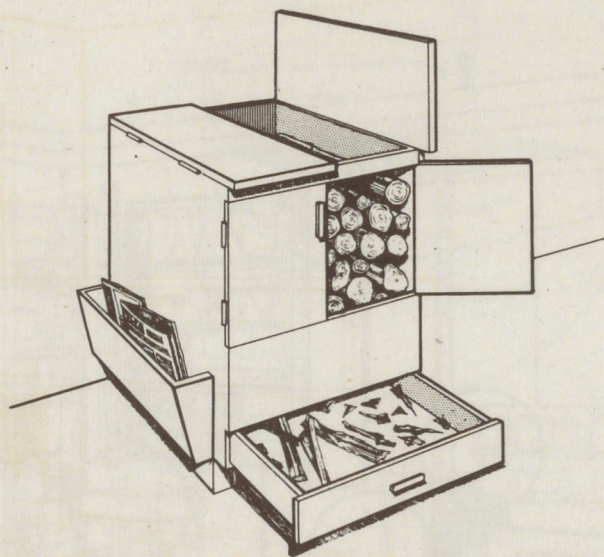
THE COOK CENTRE (NON-ELECTRIC)

Function: Same as Electric Cook Centre (Page 32).

Requirements: A gas, coal or wood range.

The wood or coal range requires a fuel box which in this kitchen replaces the planning desk and chair. If the fuel box cover is of a suitable material, it will provide additional working surface. Because of the intense heat and the smoke, all shelves above the range have been removed. The range should not be too close to the wall or base cabinets. Allow 1'-0" between the stove and the wall and 6" between the stove and the base cabinets and fuel box on either side. The wall and cabinets should be protected by a metal-faced asbestos pad at least $\frac{3}{8}$ " thick, if the stove is within 6" of them.

STORAGE UNIT



DESCRIPTION

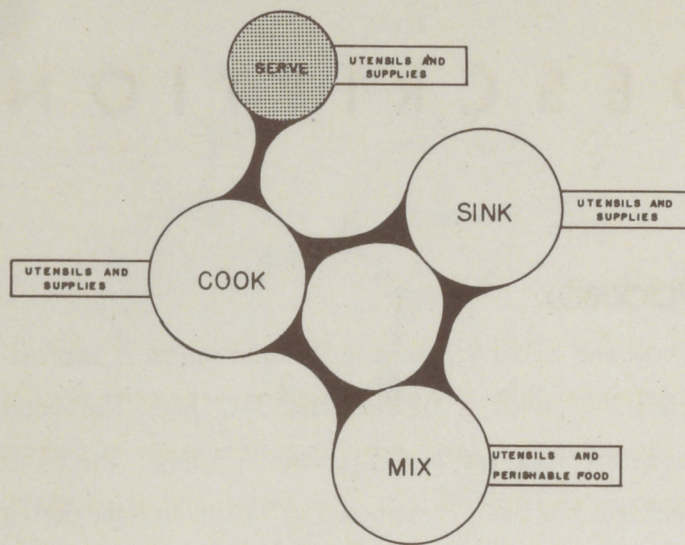
WOODBBOX

Wood and paper are kept in this unit which is approximately 2'-0" wide, 2'-0" deep and 3'-0" high. The wood compartment has top leaves to simplify filling. The right-hand leaf has been constructed to remain upright during the process of filling, to protect food on the stove from the wood chips and dust. Front doors facilitate the removal of the wood. The bottom of the compartment is slatted to allow chips to drop through to a removable tray below. The woodbox may be equipped with castors so that it may be moved to the door for refilling.

CHIMNEY-STOVE CONNECTION

In this kitchen the chimney is located directly behind the range. This makes possible the arrangement illustrated. The pipe ring for the stove pipe is located at a height which is low enough to enable the pipe to extend directly from the range to the chimney, thereby eliminating exposed stove pipes. Woodwork around the stove and on the wall behind it should be protected by a fireproof material.

THE SERVE CENTRE •



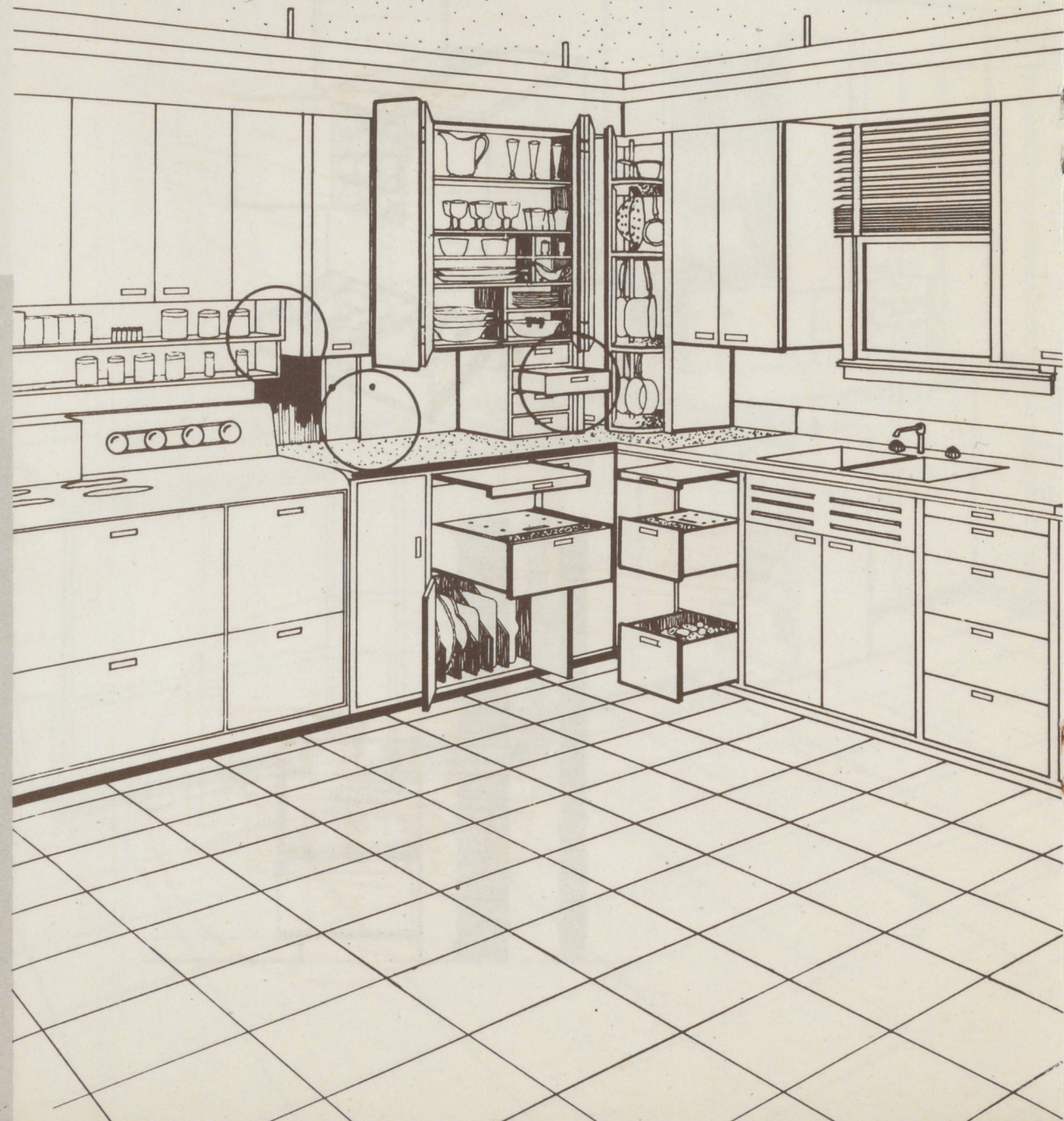
THE SERVE CENTRE

Function: To facilitate the serving of food directly to the table.

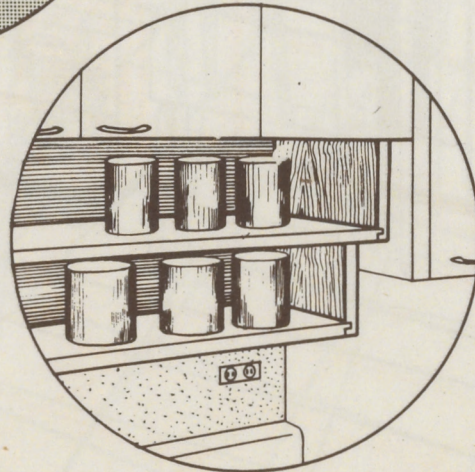
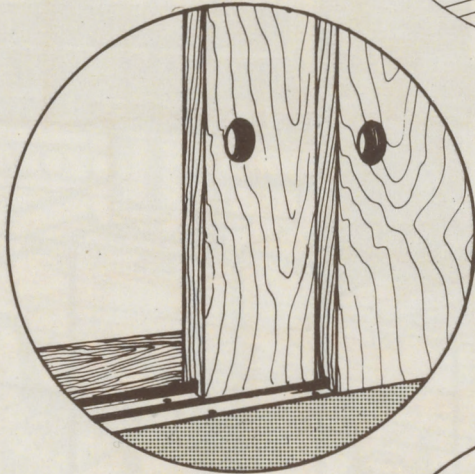
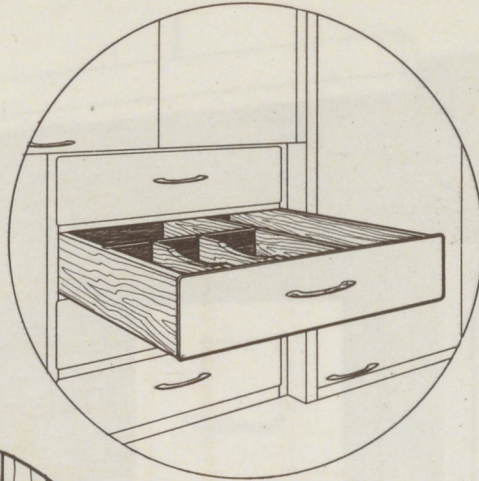
Requirements: Unlike the other centres, it has no specific appliance but it is closely related to the range. Counter space (36" minimum) for placing food in serving dishes before it is taken to the dining area. The serve centre and cook centre may use the same counter surface.

Storage space for:

- Serving dishes and platters.
- Cutlery.
- Table linen and hot pads.
- Trays.
- Ready-to-eat foods (cookies, cakes, bread, crackers, jellies, pickles).



STORAGE UNITS



DESCRIPTION

DRAWERS

The small drawers to the right of the serve counter are for storage of napkins, hot pads and silver. The open drawer is for equipment used most frequently such as carving knives, mixing spoons, etc. It is partitioned and some of the partitions are grooved, thus making the cutlery readily visible and easy to reach.

PASS-THROUGH

The sliding doors located at the rear of the serving counter surface open to the dining room. This arrangement will save many steps to and from the dining room. The food can be served from the kitchen by filling the dishes and placing them on the counter where they can be easily reached from the dining table. Dirty dishes can be passed through in the same manner when cleaning up after the meal.

HANGING SHELVES

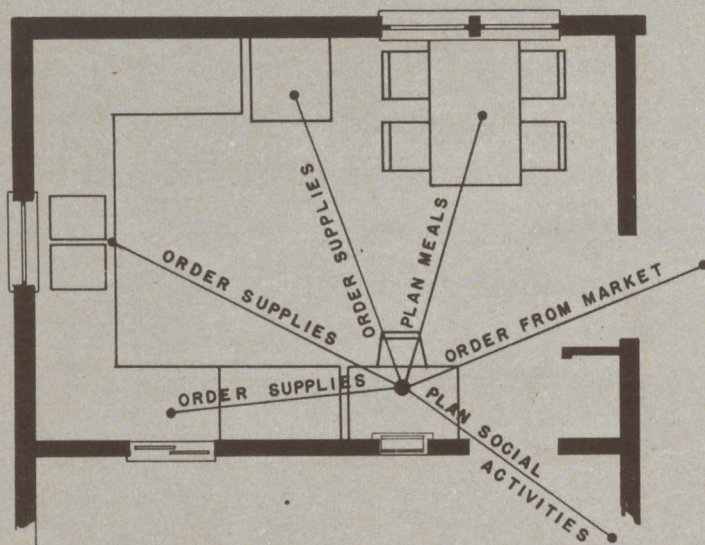
The small hanging shelves which are located above the range provide excellent storage space for pepper, spices and other flavorings, which are used at both the cook and serve centres.

THE PLANNING CENTRE

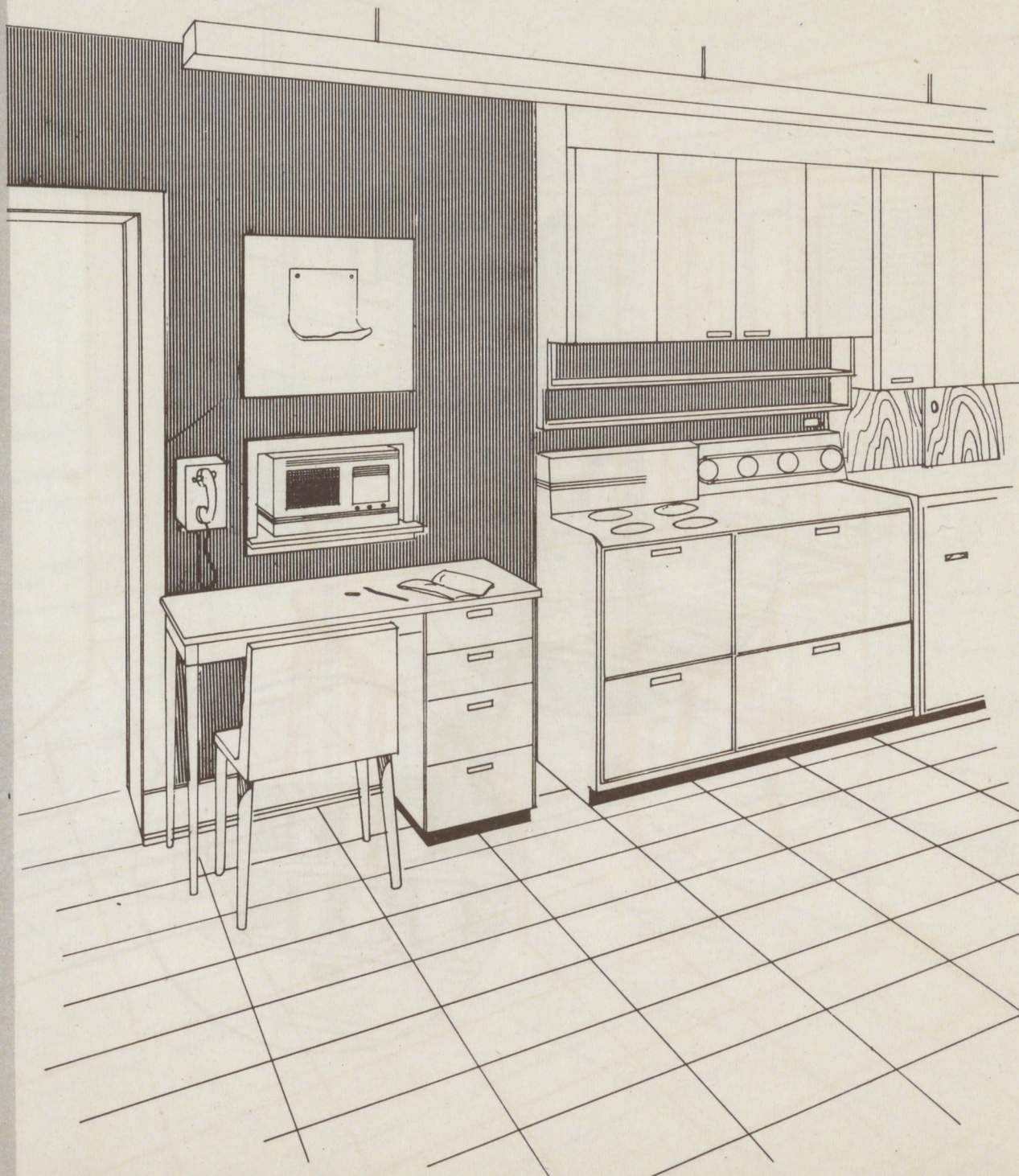
Function: It is the nerve centre of the home; the place where the meals are planned, where the market orders are made up and, in many cases, the place where accounts and farm business correspondence are filed.

Requirements: A desk or small table and a chair.
Telephone and radio.
Storage drawers or shelves.

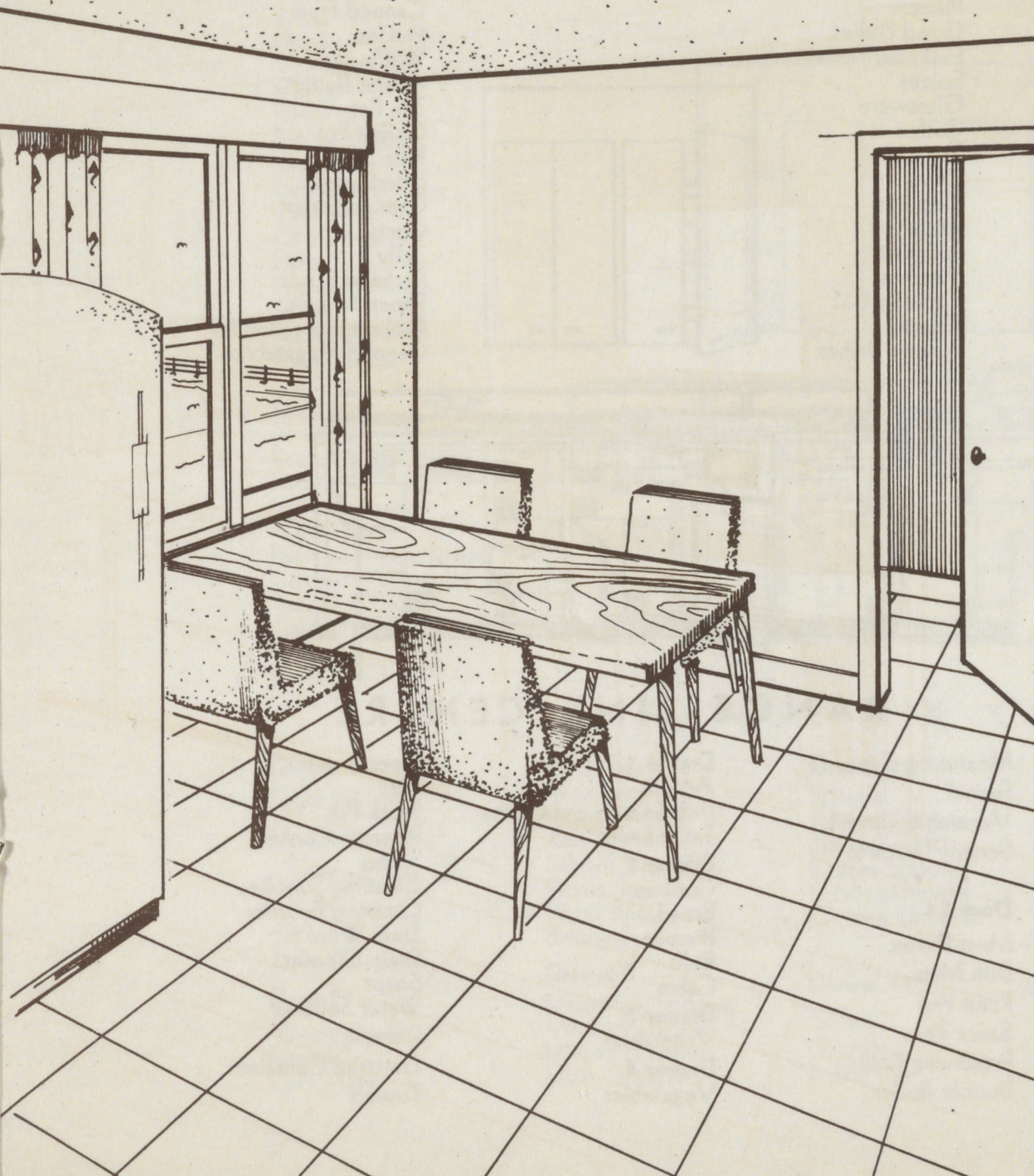
An appointment book and calendar, the home account book, catalogues and instruction manuals should all be filed at this centre.



THE PLANNING CENTRE



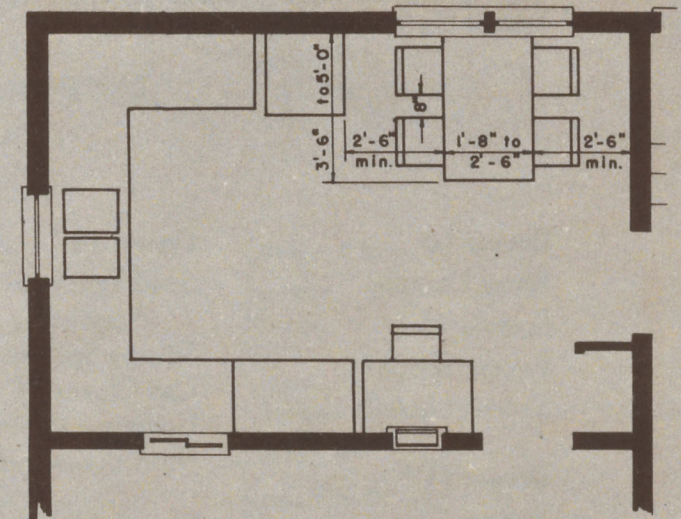
THE DINING AREA



THE DINING AREA

The dining area of the "Kitchen of Ideas" is designed to accommodate five people. It is planned in a space 8'-0" x 5'-0" which is located apart from the actual food preparation area. This arrangement makes it unnecessary for family members to walk through the work area before and after meals.

The large window permits a view of the driveway and the farmyard and also makes the area a bright and cheerful place for relaxation between kitchen duties.



HOW TO ADAPT THE KITCHEN OF IDEAS

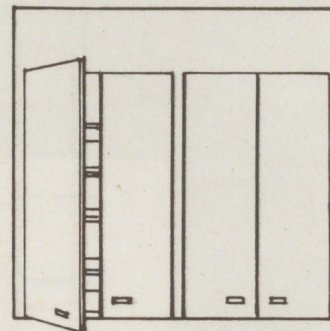
The drawings on these three pages illustrate how the three major work centres of the "Kitchen of Ideas" may be adapted to any of the seven basic plan types illustrated on page 18.

The three main centres — sink, mix, and range — have been re-designed as basic independent units. The sink centre consists of drawers and doors numbering from one to five, the mix centre consists of drawers and doors numbering from six to nine, and the range centre consists of drawers and doors numbering from ten to fourteen. There are three different combinations of centres, each combination with the necessary overhead cupboards. In each arrangement the most logical location for the storage of utensils, equipment and food has been indicated. This basic planning makes for maximum flexibility in arranging the centres either independently or in combination; making them adaptable to most kitchen plan types.

Each storage unit has been numbered and by checking the list below, the housewife may ascertain the type of utensil or equipment stored in a particular drawer or on a particular shelf. The utensils and supplies stored in the upper cabinets are listed beside the storage units.

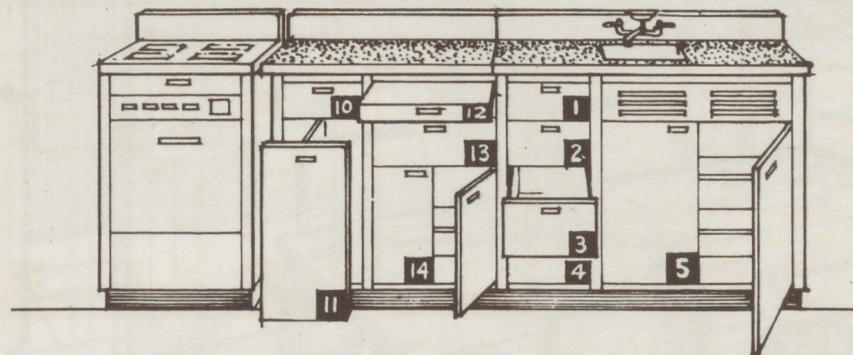
Overhead Cupboards

Platters
Good Dishes
Everyday Dishes
Spices
Glassware
Coffee
Tea
Cereals
Noodles
Macaroni
Spaghetti
Matches
Cooking Oil
Toaster
Serving Dishes



Overhead Cupboards

Canned Fruit
Pickles
Waffle Iron
Peanut Butter
Tea Pot
Coffee Pot
Rice
Dried Soups
Canned Soups
Cocoa
Jelly
Packaged Fruit
Paper Towels
Packaged Vegetables
Canned Vegetables



RANGE-SINK CENTRE

Drawer 10

Range Utensils
Spatula
Basting Spoons
Serving Utensils

Drawer 11

Aprons
Dish Towels and Cloths
Table Linen

Drawer 12

Small Testing Appliances
Stirring Spoons
Can Opener
Cutlery
Food Thermometer

Drawer 13

Masher
Knife Sharpener
Measuring Spoons

Measuring Cups
Funnel
Vegetable Utensils
Serving Utensils

Door 14

Meat Dishes
Dish Mats
Roast Pan
Sauce Pans
Preserving Kettle
Double Boiler

Drawer 1

Aprons
Dish Towels and Cloths
Table Linen

Drawer 2

Cookies
Bread
Biscuits
Rolls
Cakes

Drawer 3

Vegetables

Drawer 4

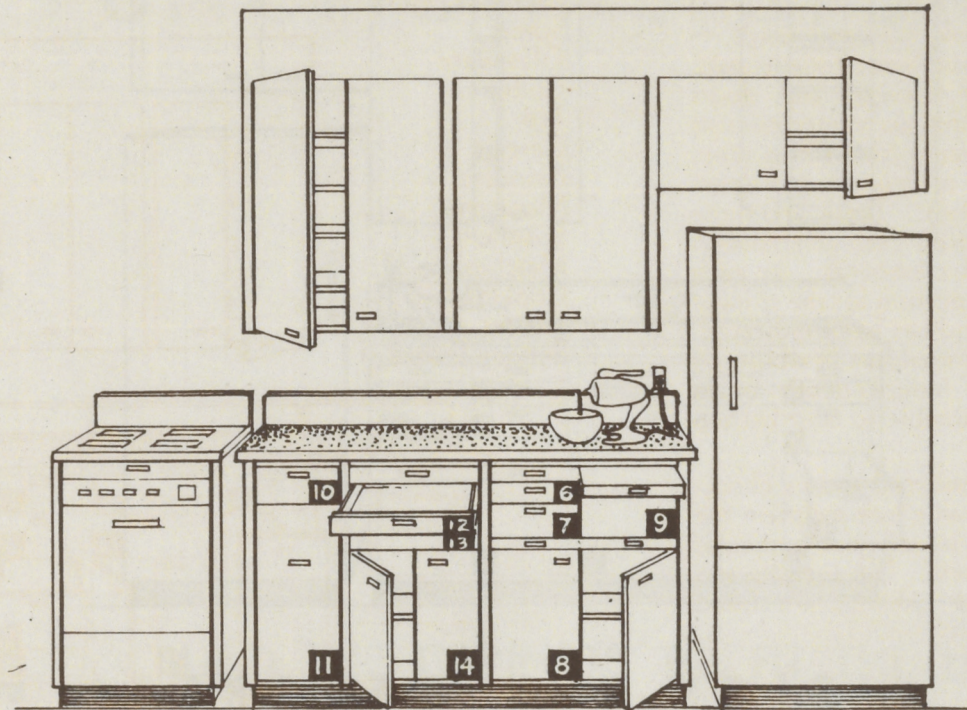
Vegetables

Door 5

Pots
Stock Pot
Pressure Cooker
Sieves
Cleaning Supplies
Cleaning Powder
Steel Wool
Drain Cleaner
Soaps
Water Softener
Dishmats
Garbage Container
Towels

Overhead Cupboards

Spices
Baking Powder
Cream of Tartar
Molasses
Syrup
Honey
Vegetable Oil
Vinegar
Flavorings
Brown Sugar
Icing Sugar
Granulated Sugar
Cake Flour
Corn Meal
Flour
Prepared Mixes
Starch
Tapioca
Baking Soda
Salt
Chocolate
Nuts
Peanut Butter
Jams
Canned Fruits
Waffle Iron
Packaged Vegetables
Canned Vegetables
Packaged Desserts
Canned Meats
Cocoa
Cereals



RANGE-MIX CENTRE

Drawer 6

Table Linen

Drawer 7

Grater and Masher
Egg Beater
Sifter
Knife Sharpener

Door 8

Mixing Bowls
Casseroles
Cake Plates

Pie Plates

Wax Paper
Cookie Sheets
Rolling Pin
School Lunches
Picnic Supplies
Paper Bags
Baking Pans

Drawer 9

Measuring Spoons
Measuring Cups
Mixing Utensils
Meat Grinder

Drawer 10

Spatula
Rubber Scraper
Range Utensils
Basting Spoons
Serving Utensils
Carving Utensils

Drawer 11

Skillet
Griddle
Frying Pan

Pot Lids

Pot Holders
Trays
Dough Cutter

Drawer 12

Can Opener
Cutlery
Scissors
Food Thermometer
Small Testing
Appliances
Stirring Spoons

Overhead Cupboards

Noodles
Macaroni
Spaghetti
Matches
Cooking Oil
Toaster
Serving Dishes
Extracts
Pickles
Vegetable Dishes
Good Dishes
Platters

Refrigerator

Shortening
Salad Dressing
Sandwich Spread
Whole Fruits
Refrigerator Dishes
Milk
Cream
Fats
Butter
Lard
Juices
Fresh Meats
Smoked Meats
Eggs

Drawer 13

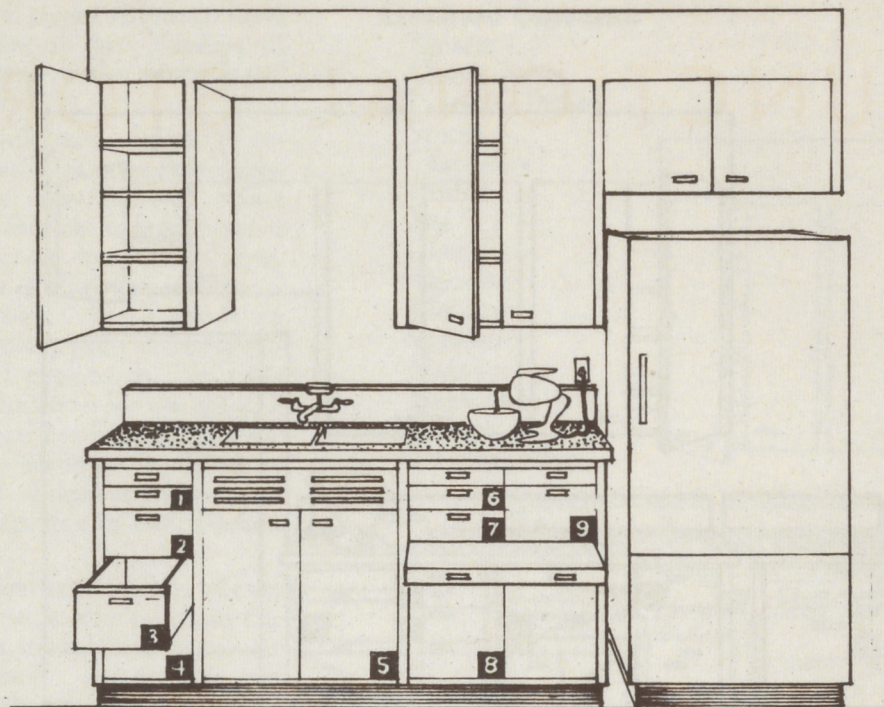
Biscuits
Bread
Rolls
Cakes
Cookies

Door 14

Roast Pan
Dish Mats
Meat Dishes
Pots
Sauce Pan

Overhead Cupboards

Coffee
Tea
Rice
Canned Soups
Dried Soups
Cocoa
Jelly
Packaged Fruit
Packaged Vegetables
Paper Towels
Coffee Pot
Good Dishes
Tea Pot
Glassware
Everyday Dishes
Cake Flour
Corn Meal
Flour
Prepared Mixes
Starch
Tapioca
Baking Soda
Salt
Nuts
Peanut Butter
Jams
Canned Fruits
Packaged Desserts
Canned Food
Chocolate



SINK-MIX CENTRE

Overhead Cupboards

Spices
Baking Powder
Cream of Tartar
Molasses
Syrup
Honey
Vegetable Oil
Vinegar
Flavorings
Extracts
Brown Sugar
Granulated Sugar
Icing Sugar

Refrigerator

Eggs
Salad Dressing
Sandwich Spread
Fresh Meats
Smoked Meats
Whole Fruits
Milk
Cream
Shortening
Refrigerator Dishes
Fats
Butter
Lard
Juices

Drawer 1

Cutlery
Scissors
Can Opener

Drawer 2

Biscuits
Bread

Drawer 3

Vegetables

Drawer 4

Vegetables

Door 5

Sauce Pan
Double Boiler
Stock Pot
Preserving Kettle
Dishpans
Kettles
Pressure Cooker
Sieves
Cleaning Supplies

Cleaning Powder
Garbage Container
Roast Pan
Towels
Steel Wool
Drain Cleaner
Soaps
Water Softener

Drawer 6

Dish Towels
Dish Cloths
Aprons

Drawer 7

Flour Sifter
Grater
Egg Beater
Spatula
Rubber Scraper

Door 8

School Lunches
Picnic Supplies
Wax Paper
Paper Bags
Baking Pans
Mixing Bowls

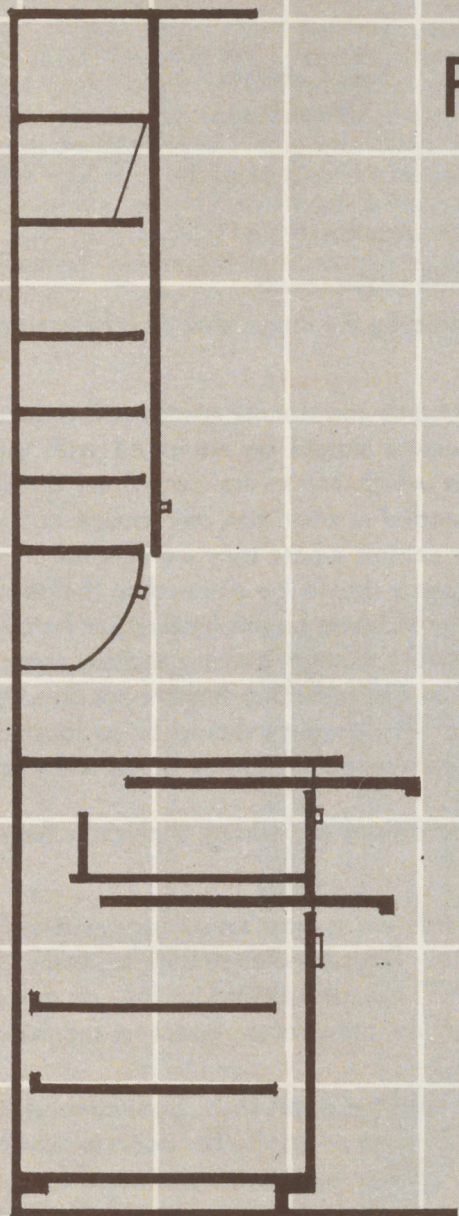
Casseroles
Cake Plates
Pie Plates
Cookie Sheets
Rolling Pin

Drawer 9

Funnel
Vegetable Utensils
Meat Grinder
Measuring Cups
Measuring Spoons
Mixing Utensils
Dough Cutter

SECTION THREE

FUNCTIONAL STORAGE



BUILD THE CABINETS TO FIT THE HOUSEWIFE

BUILD THE SHELVES TO FIT THE SUPPLIES

BUILD THE KITCHEN TO FIT THE FAMILY

FUNCTIONAL STORAGE

The following standards, based on the number of occupants of a house, have been established to assist the homemaker in determining her kitchen storage requirements.

Number of Persons in House	Wall Cabinets (lineal ft.)	Base Cabinets (lineal ft.)
2 or 3	6	6
4 or 5	8	8
6 or 7	10	10

plus 12 square feet of storage space for extra requirements.

Generally speaking, base cabinets should occupy all space beneath the wall cabinets which is not already occupied by the range, sink or refrigerator.

STORAGE CABINETS

Storage cabinets should simplify kitchen work. Their heights, depths and widths should be such that all goods stored will be within reach of the homemaker. Each item should be stored at the centre where it is used first. In this way, many steps will be saved: there will be no needless opening and closing of doors and drawers, no unnecessary carrying of articles from one centre to another.

Shelves should be kept narrow and should be adjustable. Goods stored on them should be clearly visible and within easy reach. Storage, one row deep and one stack high, is suggested for shelves, while drawer storage should be such that all articles are clearly visible and not covered by other articles.

Visibility: Cupboard shelves which are nearest to the horizontal line of vision of the homemaker should be reserved for most frequently used items. Food in small containers, flavorings, spices, measuring cups, often used bowls, should be stored in full view.

Reachability: For each homemaker there is an "easy reach." Refer to page 12.

Plates, platters and heavy articles should be stored at lower levels with the smaller, light weight articles being stored in the overhead units.

Flexibility: Well planned cupboards and storage spaces will reduce the housewife's work. Each centre should be equipped with the necessary supplies for the jobs which are to be carried on there. Foods and utensils which are needed at more than one centre could be duplicated and stored at the centres where they are needed. Drawers, doors and pull-out boards should be planned so that they do not interfere with one another. Cutting boards located just below the work surface are used for mixing, cutting, beating and chopping. If possible, these boards should be placed so that they are not directly above a cutlery or tool drawer. The drawers should be so located that it is possible to reach into them when the cutting board is drawn out.

Adjustable shelves, removable partitions and sliding shelves increase the flexibility of the storage units.

Hardware: Neat, utilitarian hardware is most satisfactory as it will not catch clothing or collect dirt. Door handles should be attached within the "circle of easy reach." Handles should be low on overhead cupboard doors and high on drawers or doors in the base cabinets.

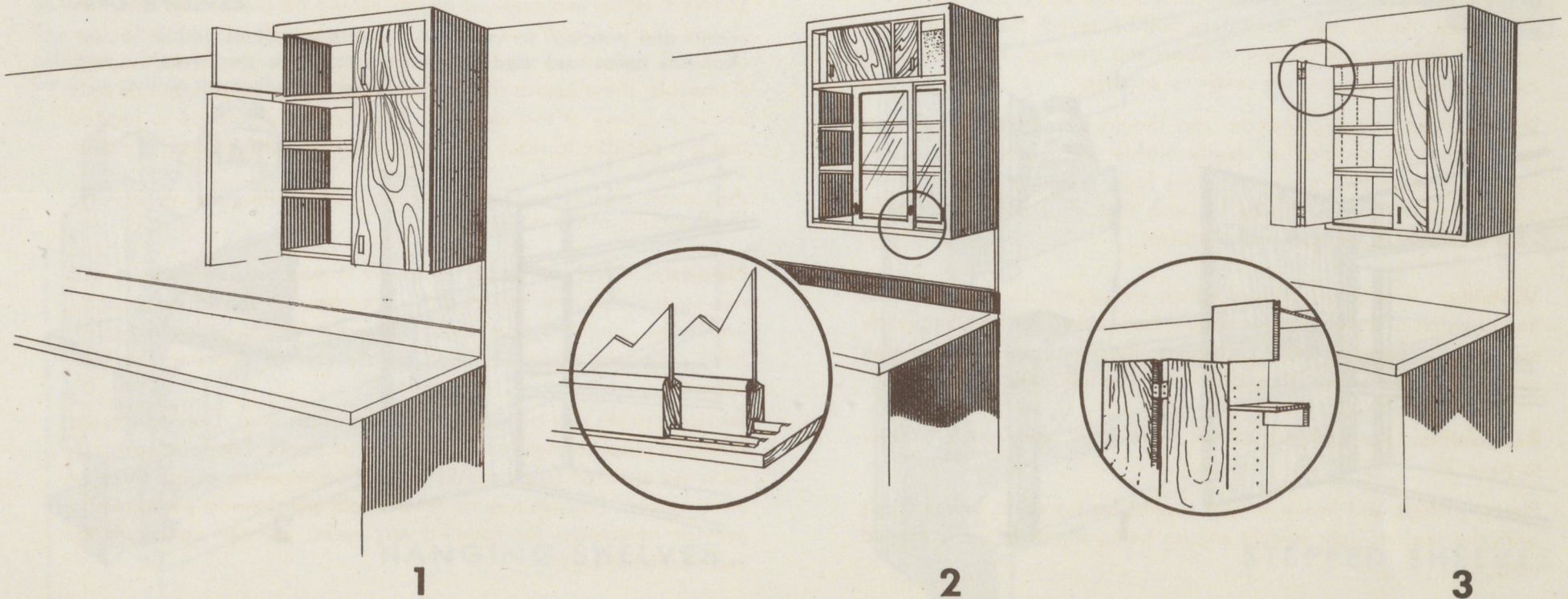
Friction catches may be used to hold the doors shut. Semi-concealed hinges of rustproof metal should be used on doors. For doors to which racks are attached (see page 27) it may be necessary to use three or more hinges. Louvres may be set in cupboard drawers and doors to provide ventilation for towel-drying racks, garbage compartments, and vegetable bins.

WALL STORAGE UNITS

Ideal storage is provided by wall cabinets which are built no higher than 6'-6" from the floor. In this arrangement, all objects stored on the shelves are clearly visible and easily reached. Shelving above the 6'-6" height should be used only for seasonal storage. This space can be reached with the aid of a small step ladder. Many people prefer to close this area off by furring the ceiling down to the 6'-6" height or by finishing the area with a fascia board.

1. The most popular wall unit has two doors which open over the work space. This unit is the easiest to construct and the simplest to operate.

2. The sliding door unit takes up less space because the doors do not project over the work surface. Storage is only 50% exposed or immediately available, which is a disadvantage. Doors may be of glass or plywood and a hardwood strip may be substituted for the more expensive steel track.
3. Wide wall cabinets may have accordion-fold doors which swing back and do not project fully over the counter. To prevent accidents, the cabinet doors should not extend beyond the width of the base cabinet.

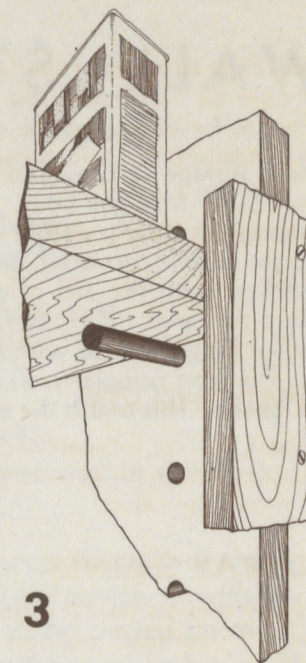
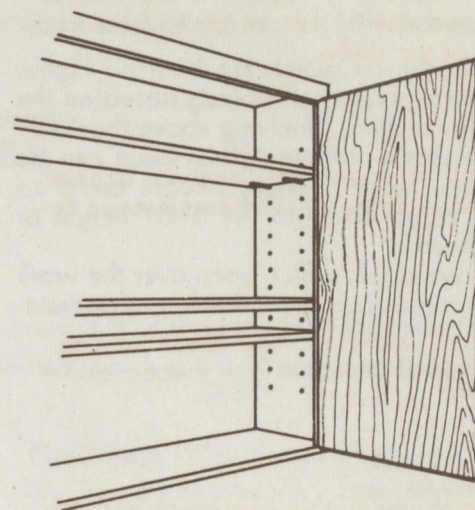


SHELVES

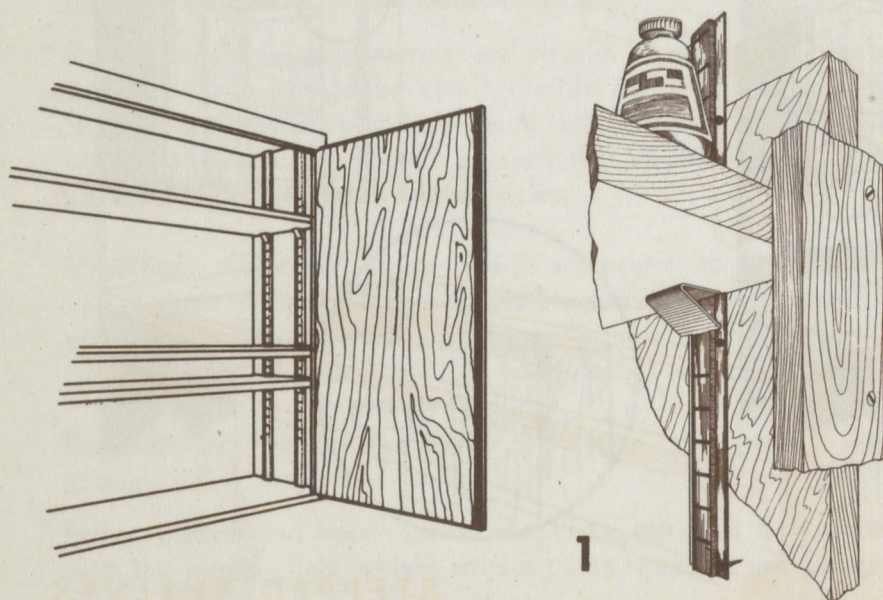
Shelves which are deep enough to accommodate one row of dishes, equipment or supplies make it easy to remove articles without reaching over other articles.

Shelves may be supported in a number of ways. The best methods, however, allow for adjustment to accommodate a variety of equipment and to take into account the differences in the sizes and shapes of packaged goods, etc. Adjustable shelves may be supported in the following various ways:

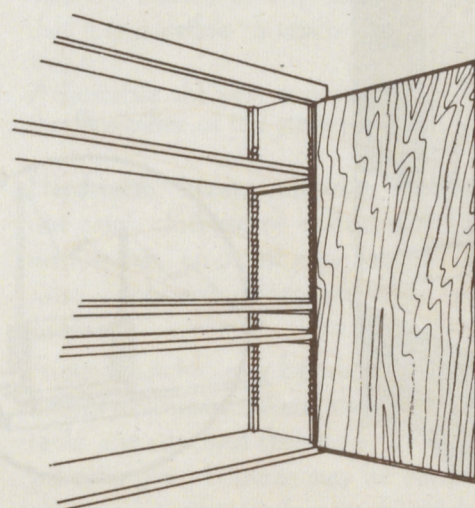
1. By clamps inserted into perforated metal strips which are fastened to the wall of the cupboard.
2. By saw-tooth grooved wooden strips which are fastened to the sides of the cupboard.
3. By metal or wooden pins which are set in holes bored in the side wall of the cupboard.



3



1



2

To make the best use of available space, shelves must be carefully planned. The type of supplies to be stored will help to determine the kind of shelves to be used and the quantity and size of the objects to be stored will determine the width and depth of the shelves.

HANGING SHELVES

Storage space may be increased by hanging small shelves beneath full-sized shelves. These shelves provide an excellent storage space for spices, flavorings and condiments.

STEPPED SHELVES

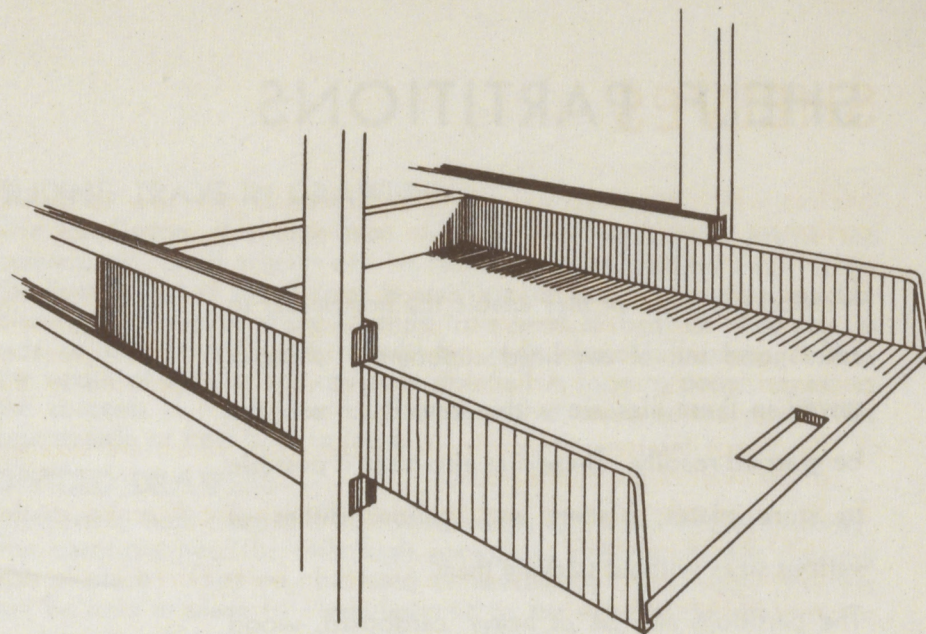
Stepped shelves increase the amount of useful storage space in overhead cupboards, by providing a method of storing oddly shaped dishes one above the other.

CUTAWAY SHELVES

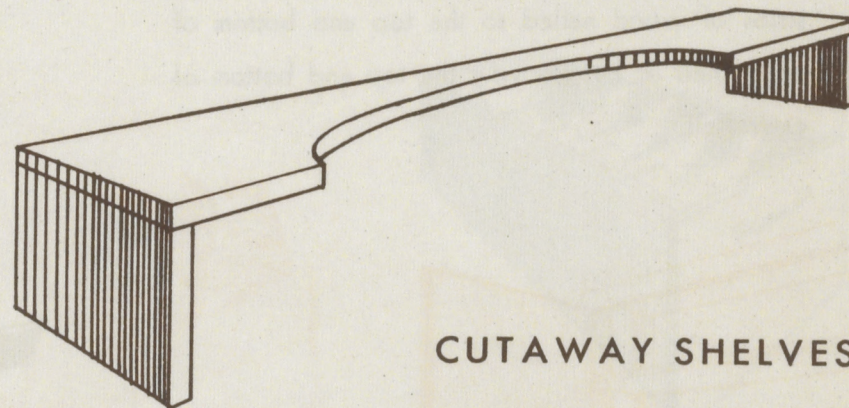
Cutaway shelves permit articles to be stored within easy reach and full view. If overhead cabinets are too deep, it may be desirable to use this type of shelf.

SLIDING SHELVES

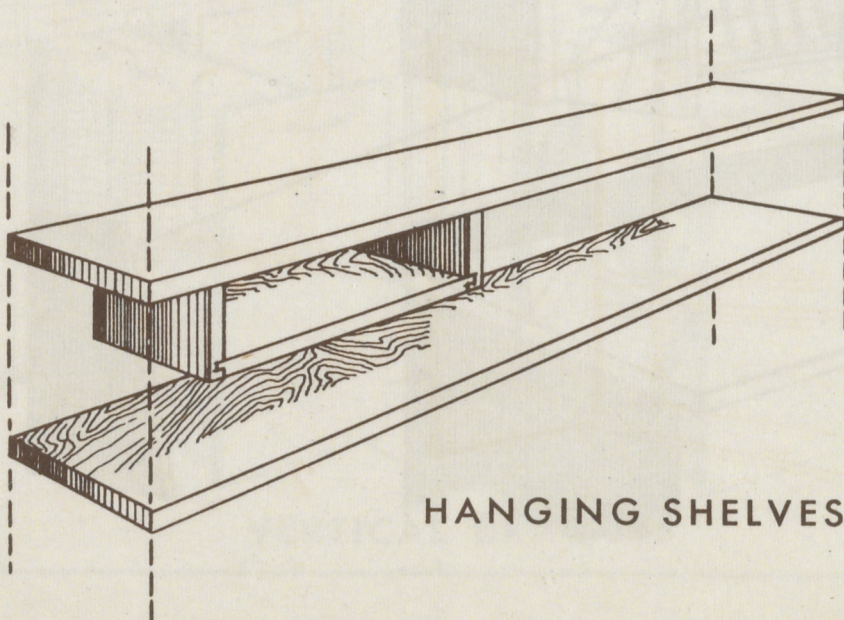
The use of sliding shelves avoids the necessity of reaching into deep cabinets. Heavy pots and pans are brought into easy reach and full view by pulling the shelves forward.



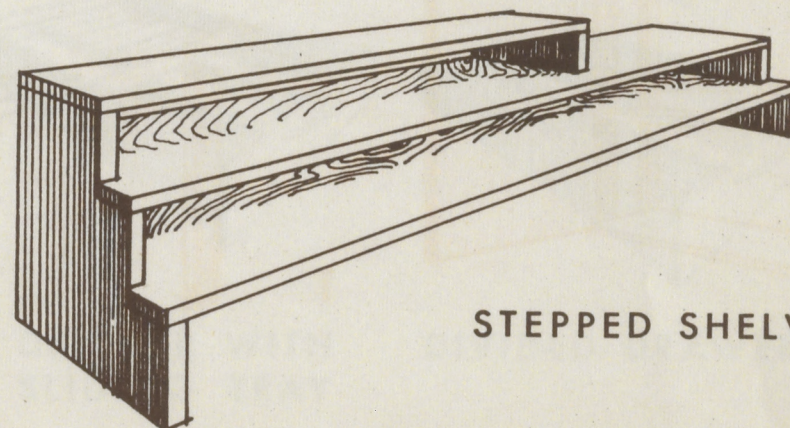
SLIDING SHELVES



CUTAWAY SHELVES



HANGING SHELVES

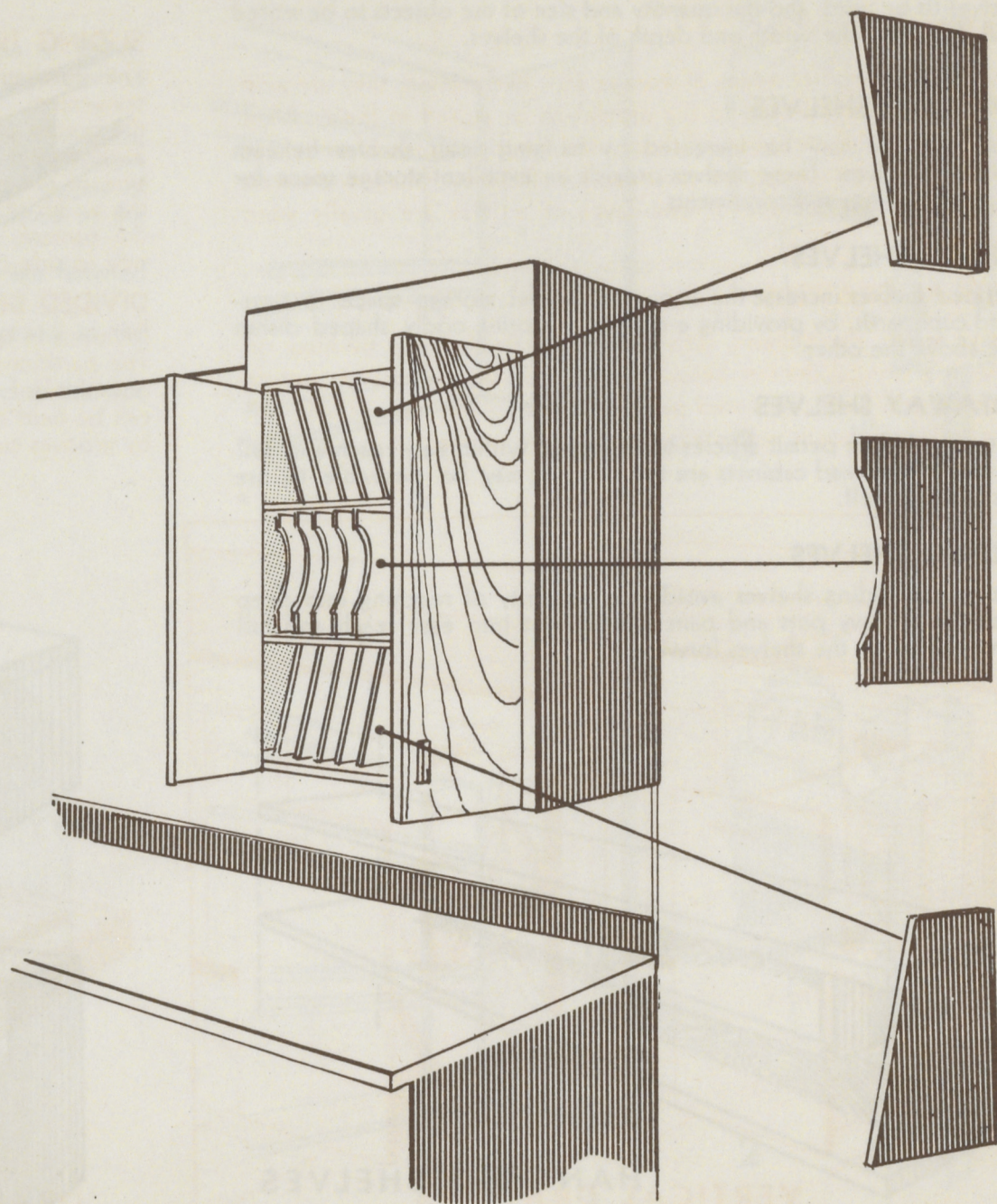


STEPPED SHELVES

SHELF PARTITIONS

Vertical partitions or files enable the homemaker to make good use of overhead cupboards. Articles stored in these files are within easy reach and can be grasped readily. These files also make it possible to store plates, platters and shallow dishes of various sizes without stacking them.

The partitions may be of heavy cardboard, wood or sheet metal and may be held in position by thin strips of wood nailed to the top and bottom of each shelf or by grooving the top and bottom of each shelf.



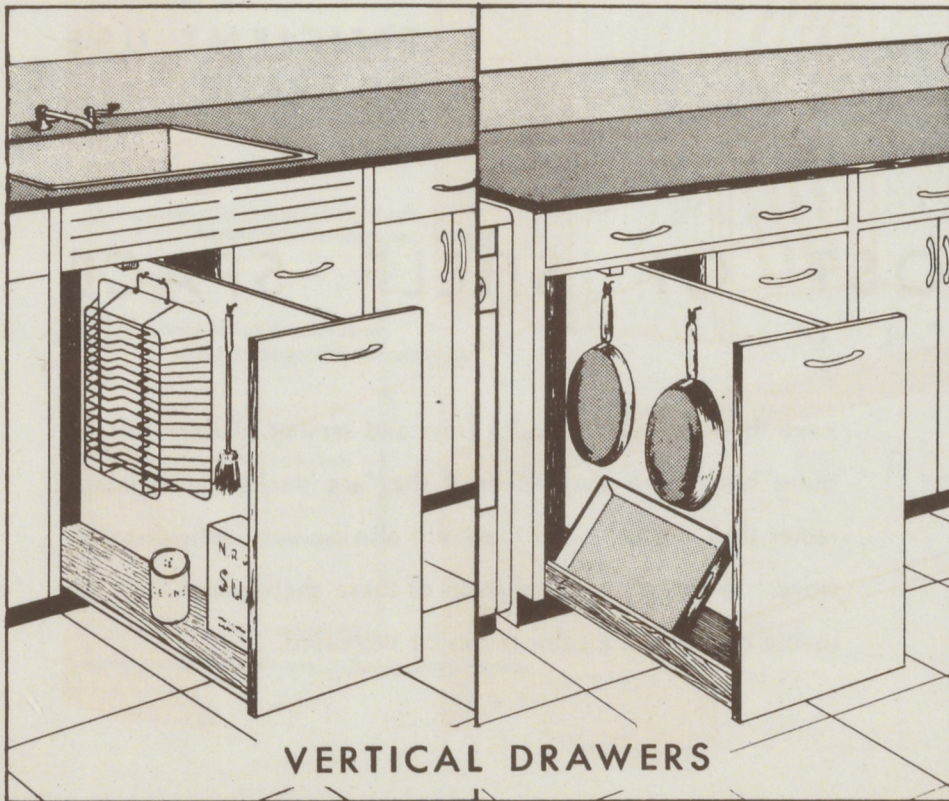
DRAWERS

DRAWERS

Drawers offer another means of storage and, like shelves, they are most useful if they are adapted to the articles to be stored in them. Most drawers, with the exception of those used for the storage of towels or large pieces of equipment, are too deep for efficiency. Shallow drawers which permit the storage of one layer of articles are usually more satisfactory.

VERTICAL DRAWERS

To save space, the dishpan, dish-drainer and brushes may be hung on hooks in a vertical drawer below the sink. A vertical drawer beside the range will hold often-used pans and covers. This type of unit will bring bulky equipment within easy reach of the worker.



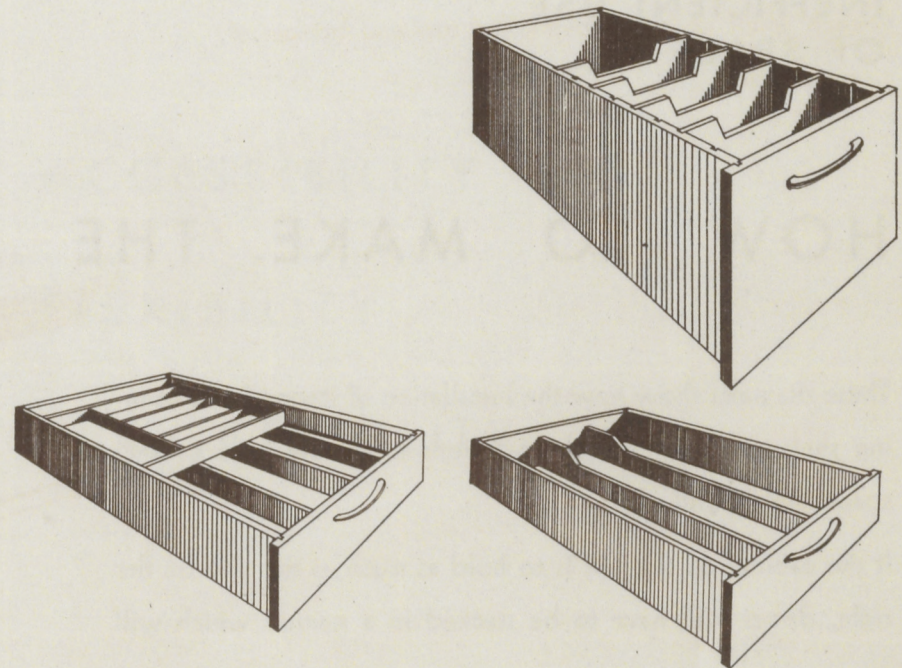
VERTICAL DRAWERS

SLIDING TRAYS IN DRAWERS

The installation of sliding trays will make drawers more useful and convenient. Small articles can be stored in these shallow trays, while the bottom part of the drawer is used for the storage of larger articles. Sliding trays may be made to slide from front to back or from side to side of the drawer. They should be made about $\frac{1}{4}$ " narrower than the width of the drawer and only one-half as long to permit access to the contents in the bottom of the drawer as the tray is slipped from side to side or from back to front.

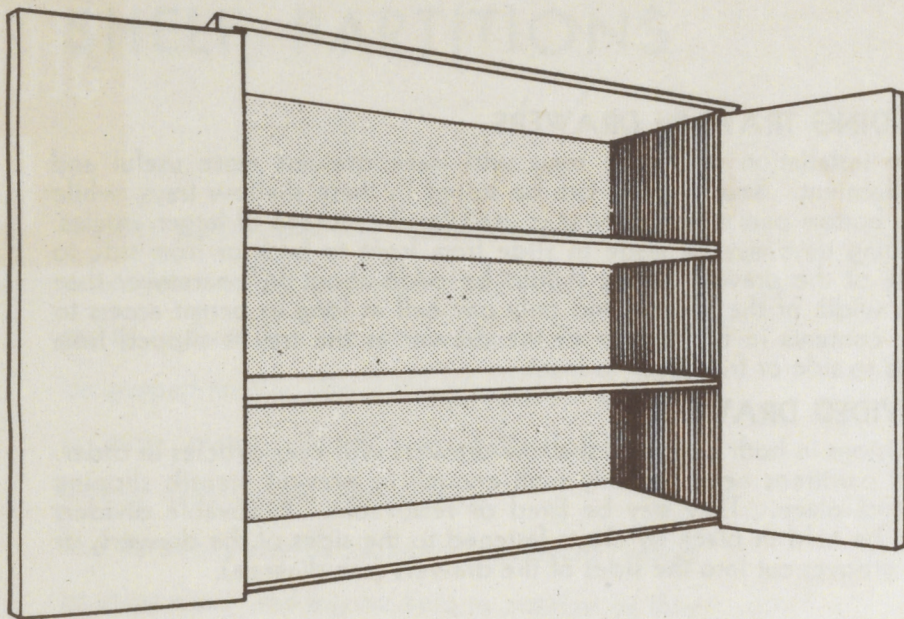
DIVIDED DRAWERS

Divisions in both deep and shallow drawers will keep articles in order. The partitions need be only high enough to prevent utensils slipping out of place. They may be fixed or removable. Removable dividers can be held in place by cleats fastened to the sides of the drawers, or by grooves cut into the sides of the drawers (see diagram).

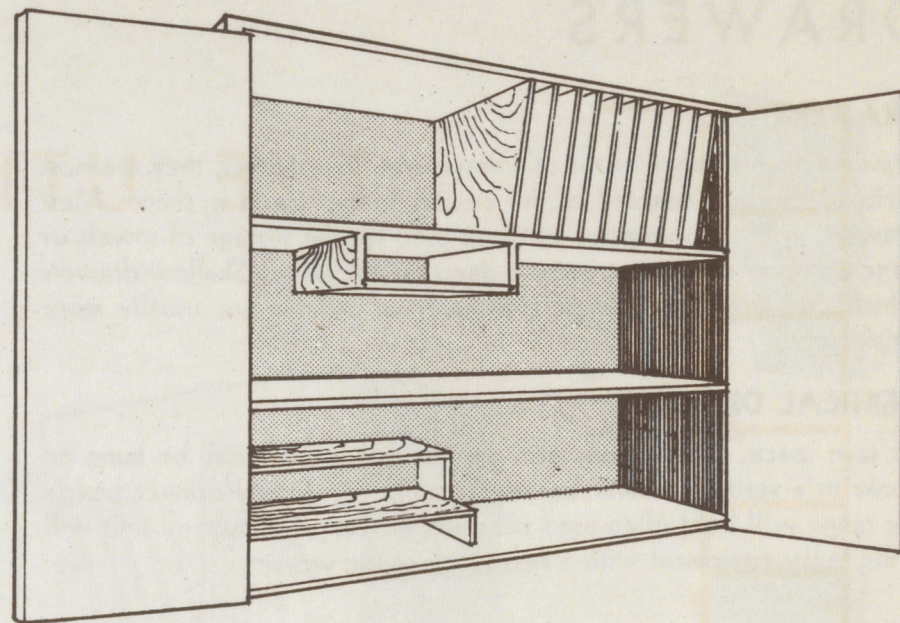


DRAWER WITH
SLIDING TRAY

DIVIDED DRAWERS



INEFFICIENT USE
OF SPACE



EFFICIENT USE
OF SPACE

HOW TO MAKE THE MOST OF SHELF SPACE

These diagrams show how the installation of stepped and hanging shelves and of upright partitions makes available cabinet space more useful.

If the cabinet on the left is to hold as much as the one on the right, dishes will have to be stacked in a manner which will

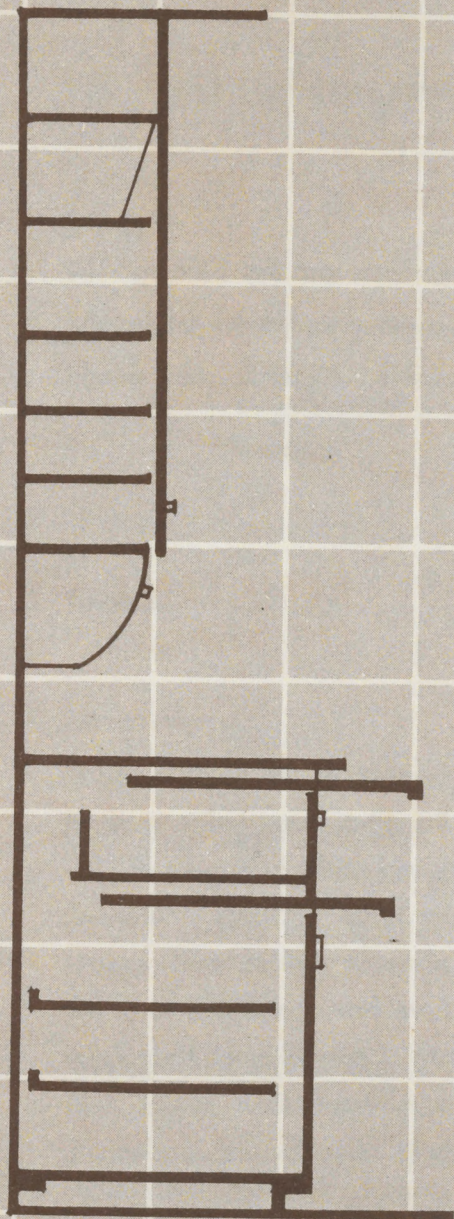
make their removal difficult. Trays and serving platters will require much more shelf space if they are stacked horizontally rather than vertically and they will also be very difficult to remove. With proper installation of these shelves and files, the usable capacity of a cabinet can be increased.

THE UTILITY ROOM

PLAN FOR ACCESSIBILITY

PLAN FOR FLEXIBILITY

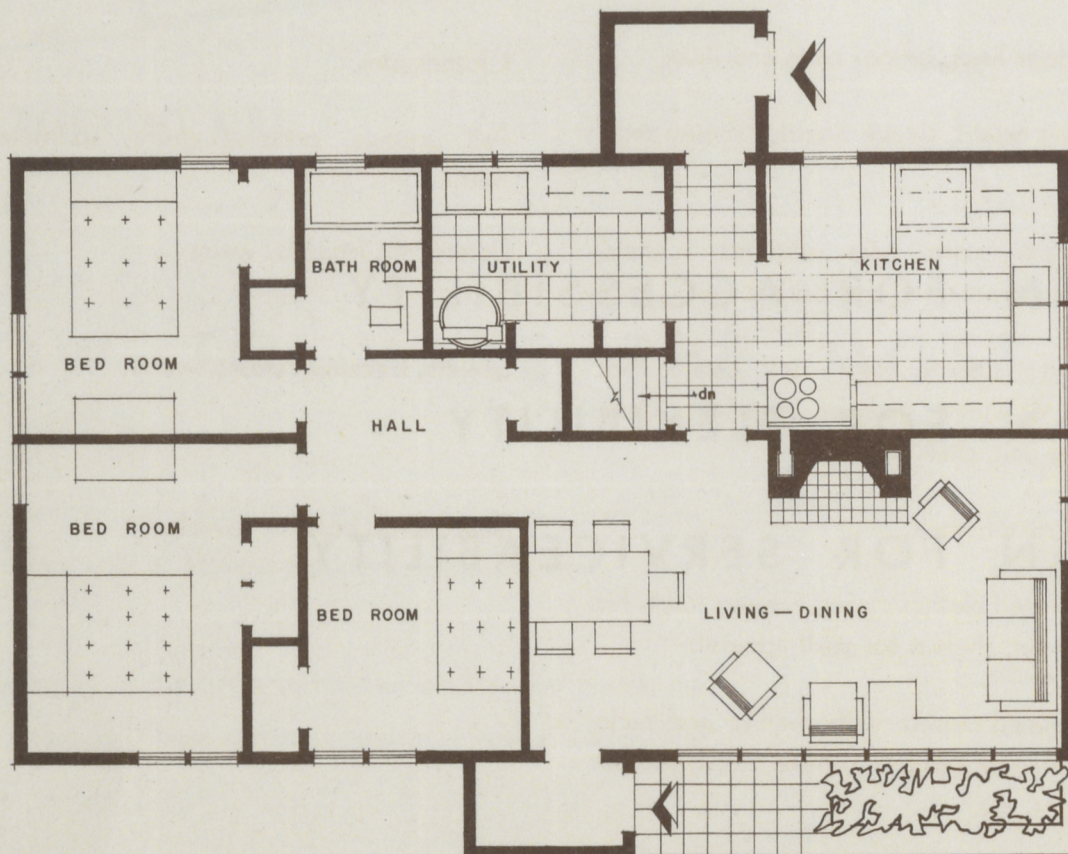
PLAN FOR SERVICEABILITY



THE LOCATION

The best location for the utility room is on the main floor, adjoining the kitchen and near the rear entrance and basement stairs. This location makes it easily accessible from inside and outside the house.

If the utility room must be located in the basement, the basement stairs should be convenient to the rear entrance and the kitchen. The stairs should have a straight run with no landings or winders so that awkward and heavy articles may be carried up and down safely. An outdoor stairway leading directly to the basement utility room will save many steps. If such an arrangement is used, the exterior stairs should be sheltered against snow and rain.



Because of the multiple use of the all-purpose utility room, it is impossible to present a "Utility Room of Ideas." Instead, plans of various work centres have been presented with the aim of providing the homemaker with information which will help solve individual planning problems.

PLANNING A UTILITY ROOM

To plan a utility room, first list the activities to be carried on there, then list the equipment and materials needed for these activities.

JOBS

1. Laundering Sorting
 Washing
 Removing Stains
 Starching
2. Drying
3. Ironing
4. Separating
5. Canning or Freezing of Food
6. Men's Washing
7. Storage of Outdoor Clothing
8. Storage of Cleaning Equipment

EQUIPMENT

Counter, soiled clothes hamper or bin, washing machine, laundry tubs, wringer, basket, pan, hot plate, etc.

Outdoor lines, indoor racks and lines.

Ironing board, sleeve board, hanging rack, iron.

Separator, pails, pans, strainers, funnels, shipping containers and storage unit.

Counter, storage space, sink, canner, hot plate or stove, garbage container, deep freeze unit, chair or stool.

Sink, mirror, shelf.

Ventilated clothes closet, hangers, racks for footwear, shelves for small apparel.

Ventilated closets with shelves and racks for cleaning supplies, brooms, mops, vacuum cleaner, etc.

MATERIALS NEEDED

Hot water, soaps, water softeners, stain removers, etc.

Clothes pins.

Pad, sponge, pressing cloths, sprinkling bottle.

Detergents, brushes, water.

Sealers, freezing cartons, water.

Soap, scrub brushes, towels.

LAUNDRY CENTRE

Many of the inconveniences which result from having to do the laundering in the basement, rear shed or kitchen can be eliminated by the installation of a laundry centre in a well-planned utility room. Some of the features which should be included in the laundry centre are:

- Hot and cold running water,
- Electric power,
- Washing machine and laundry tubs,
- Iron and ironing board,
- Counter and storage space for laundry supplies, basket, drying rack, etc.

If electric power is not available, a gasoline operated washing machine will be necessary and the water and the iron will have to be heated by the stove.

An outside vent should be provided for the gasoline powered washing machine.

The laundry tubs, washing machine and stove (if a stove is included) should be arranged as closely together as possible.

The ironing board, clothes rack and iron should be stored together.

Space Allowance: Enough space must be allowed around equipment to enable the housewife to move freely. The minimum space allowance for passageways and for space between large pieces of equipment is 36". At one end of the laundry tub 18"-24" of open space is needed.

There should be enough space near the washing machine for a table or a counter for sorting dirty clothes. This unit should be 4'-0" to 8'-0" long, 2'-0" deep and a comfortable height for the housewife.

Space should also be provided in the laundry centre for the drying of clothes.

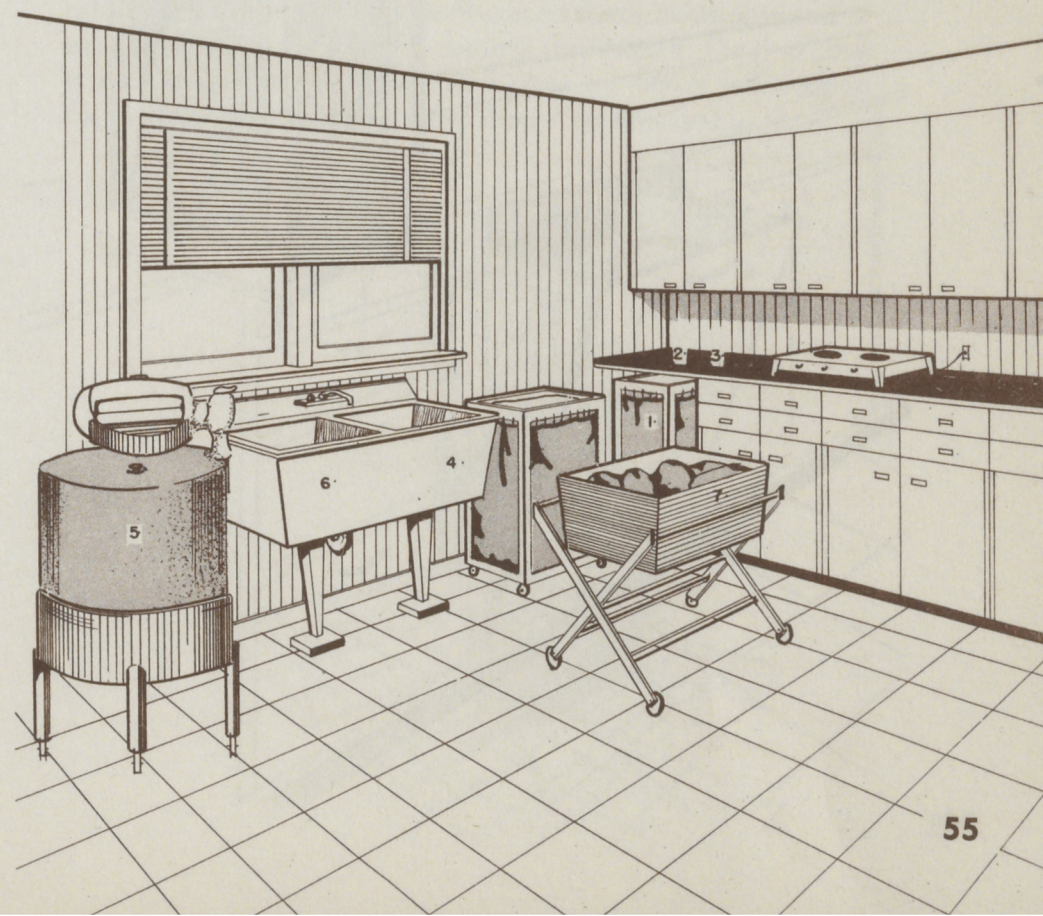
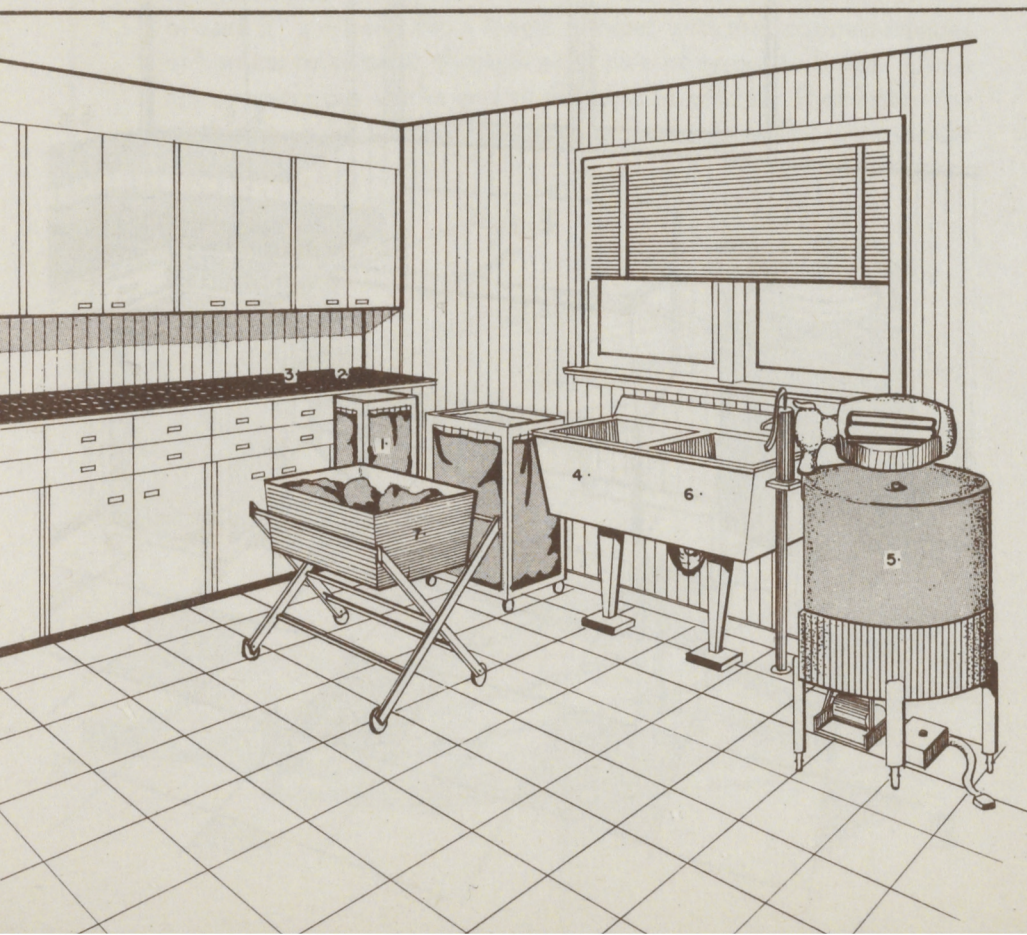
ARRANGING LAUNDRY EQUIPMENT

Equipment should be placed so that the work proceeds from one task to another in logical sequence, with only a step or two from one place to the next. The accepted order in which laundering is done is as follows:

ACTIVITY

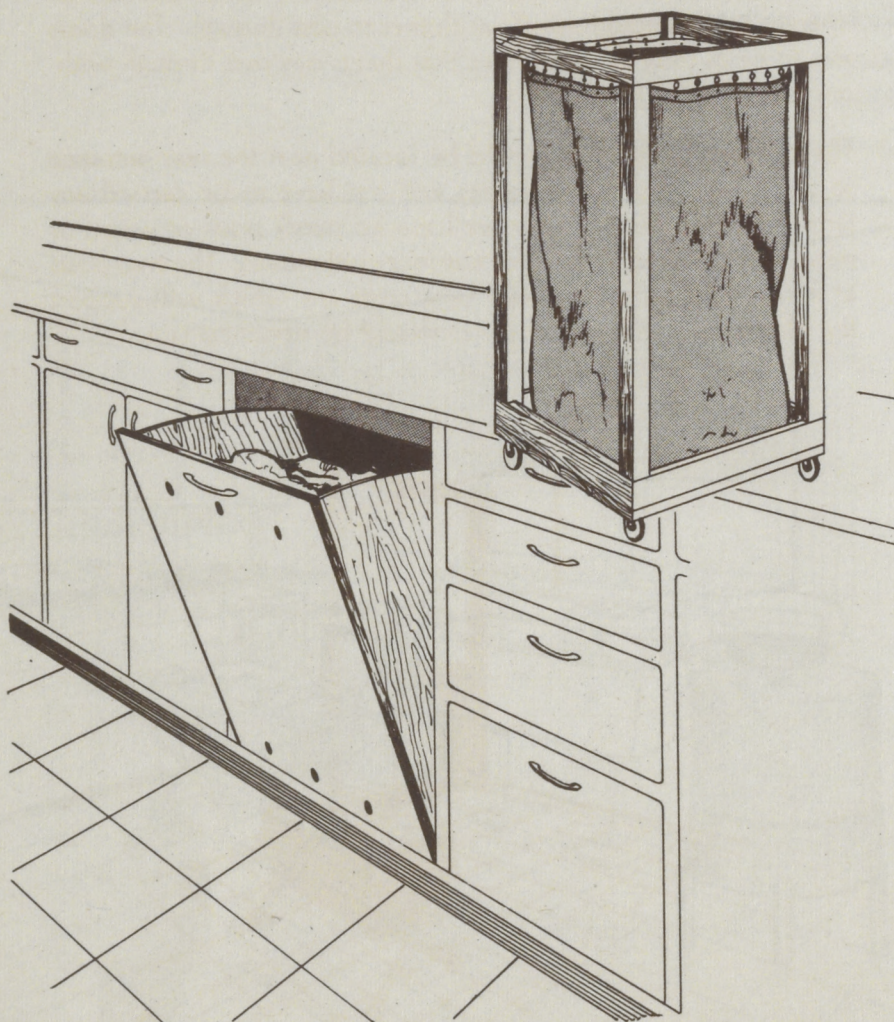
NECESSARY EQUIPMENT

1. Storing Soiled Clothes.....Bins or canvas cart
2. Sorting.....Table or counter
3. Removing Stains and Mending.....Counter and Storage for supplies
4. Soaking.....Laundry tubs
5. Washing.....Washing machine
6. Rinsing.....Laundry tubs
7. Placing in Basket.....Utility cart with basket
8. Hanging Clothes to Dry.....Clothes line (indoor or outdoor)



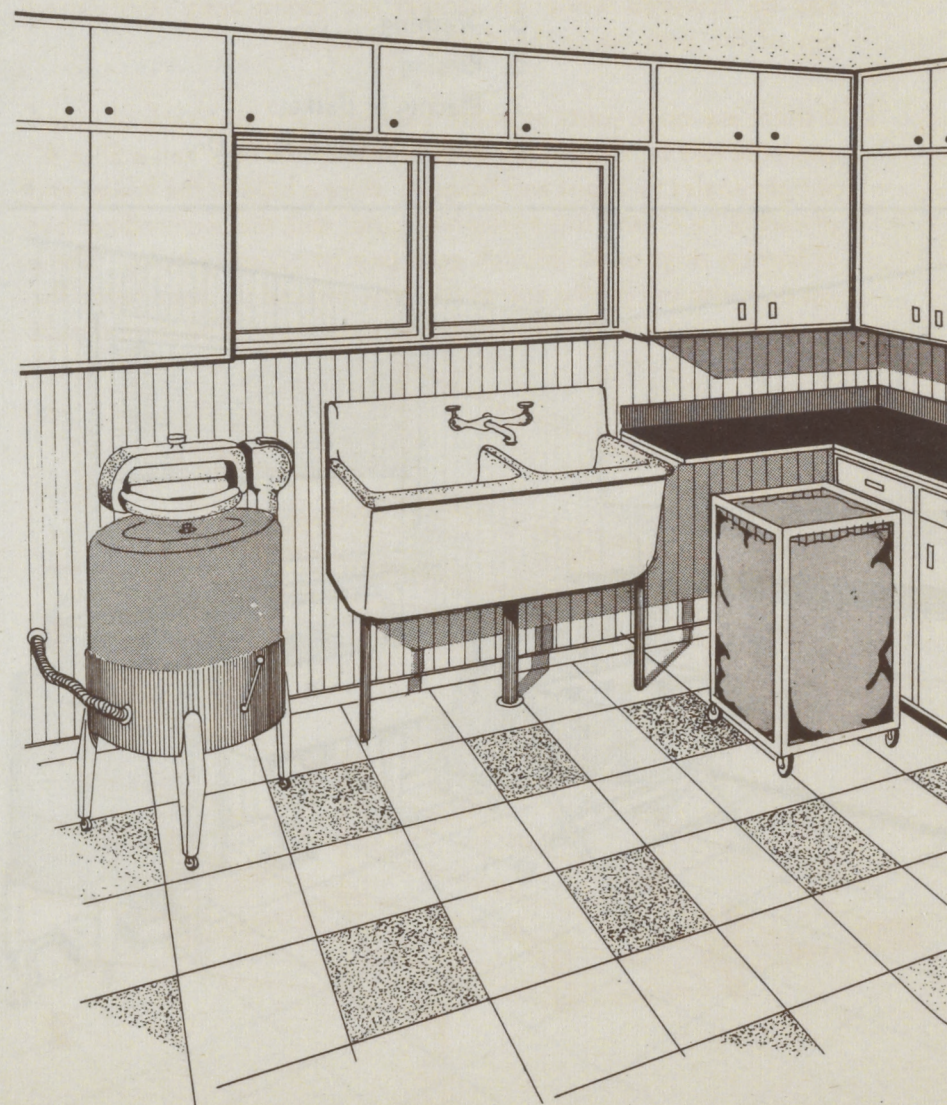
STORING SOILED CLOTHES

The main requirement for the storage of soiled clothes is that the storage units be large enough to hold the entire family wash. It is desirable to have at least two hampers or bins, one for work garments and one for lighter garments, sheets and towels. These storage units should be ventilated to allow air to circulate through the clothes. The two diagrams illustrate a canvas hamper on castors and a bin built into the base cabinets.



SORTING SOILED CLOTHES

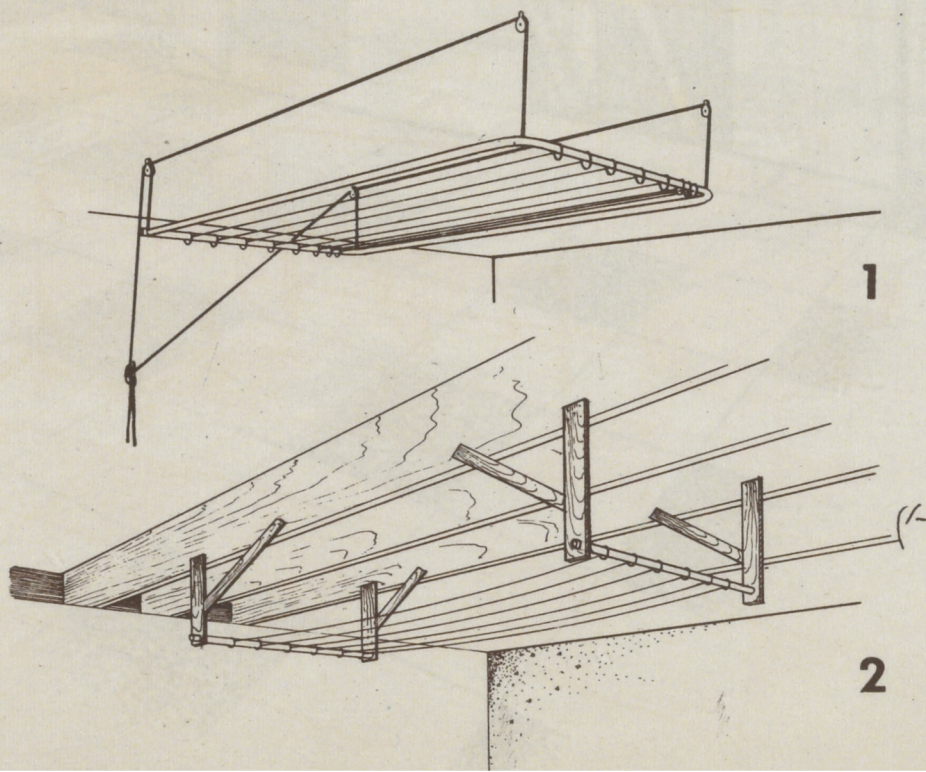
A high counter or a table long enough for sorting several types of clothing should be included in the laundry centre. Wall cabinets above this counter should hold supplies needed for removing stains, mending, washing, rinsing, sprinkling and ironing. The bins for soiled clothes may be located below the counter. This sorting counter can also be used for canning and preserving, preparing foods for market and for the storage of utensils and supplies needed for other activities carried on in the utility room. (Note that the gasoline powered washing machine must be vented to the outside in order to carry carbon-monoxide fumes from the room.)



DRYING CLOTHES

The drying area is an important part of any laundry. Outside drying is the ideal method, although space should be provided for indoor drying during bad weather.

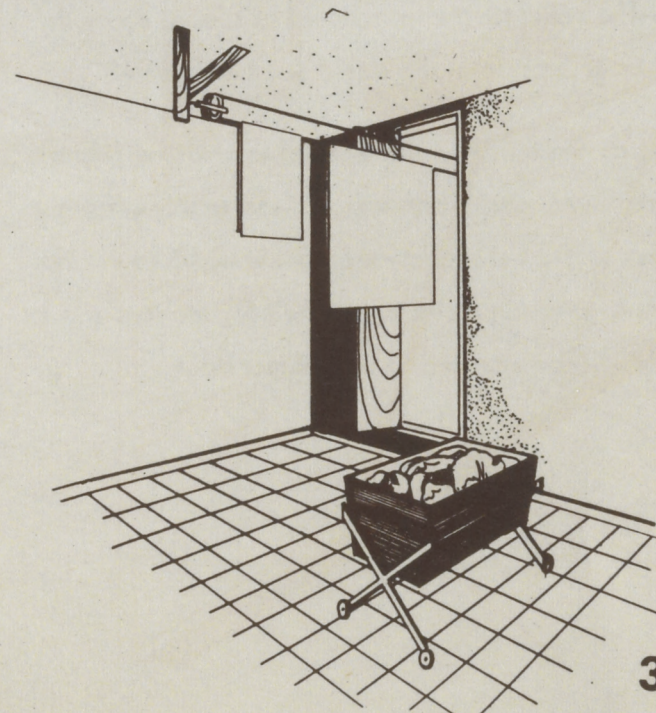
1. A good arrangement for indoor lines can be achieved by putting $1\frac{3}{4}$ " harness rings about 3" apart on opposite ends of a rectangle made of $\frac{3}{4}$ " pipe. Clotheslines of wire or rope are then attached to opposite rings, creating a series of parallel lines. This unit is attached to the ceiling with a system of pulleys so that it may be lowered while the clothes are being hung and raised out of the way while the clothes are drying.
2. If there are open joists as in the basement, a drying rack of wood and pipe may be made. For each corner of the rack nail a 2" x 4" at right angles to a joist and brace it. Bore a hole in the lower end of each 2" x 4" and slip a length of pipe, with the required number of harness rings on it, through each pair of opposite holes. Use a nut or cotter pin on the end of the pipe to hold it. Then fasten the clothesline wire to the rings opposite each other. The wire should



be loose enough to allow the rings to slide along the pipe so that they can be pushed together for convenience or far apart for quick drying.

3. A pulley clothesline that operates from the utility room or enclosed rear porch will save time and steps. One pulley is fastened inside the house while the other pulley is outside. The wires pass through a narrow door. The clothes are hung inside and then pushed outside by means of the pulley system. The door is built between two 2" x 4" studs (16" on centre), which provide an opening wide enough to allow clothes to pass through. The doors should be as long as possible so that sheets may pass through without touching the floor.

The outdoor clothesline should be located near the rear entrance so that heavy baskets of clothes will not have to be carried any farther than necessary. Four well spaced sturdy posts of wood or metal form the best support for outdoor clotheslines. The two posts at each end should be joined by a cross arm which will support the clothesline wires. The wires should be stretched taut.



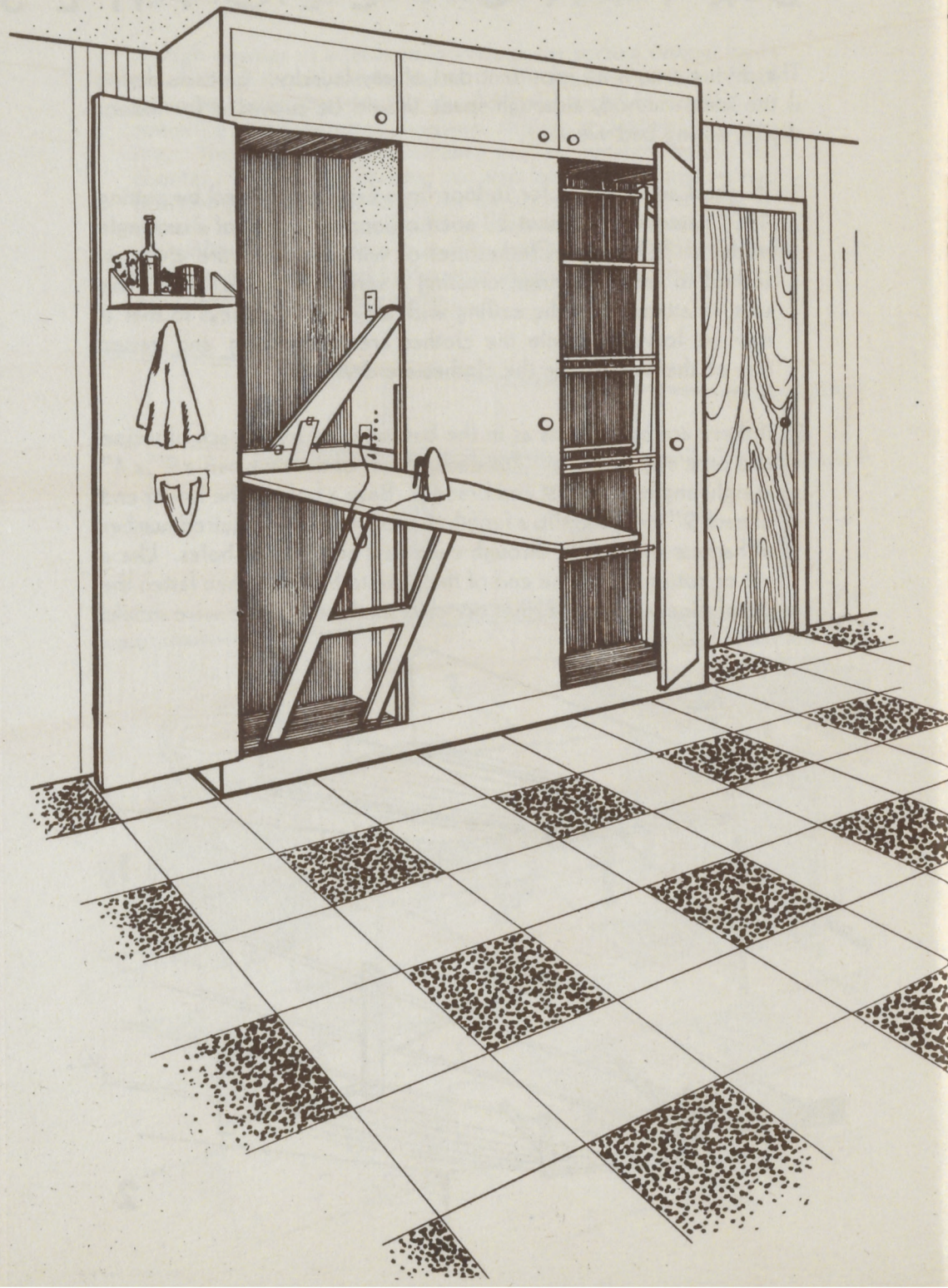
IRONING

The unit illustrated provides storage for all the equipment used for ironing. One section of the unit is used for storing a wooden drying rack which could be used for hanging clothes as they are ironed.

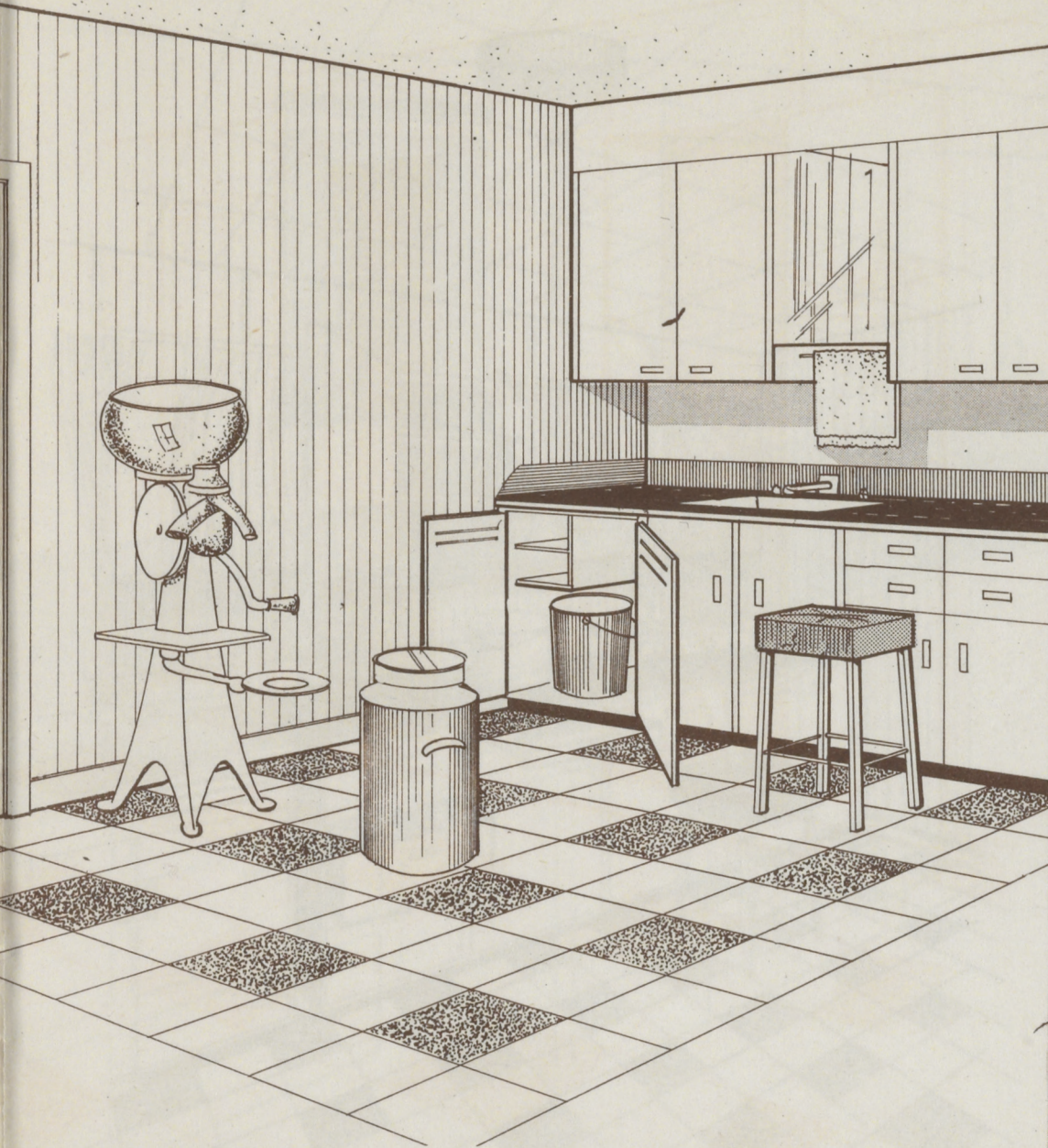
The ironing board is a convenient size and shape. It is 20" wide and 60" long with a shaped end for ironing dresses or children's clothes. It is adjustable in height so that the homemaker may stand or sit while ironing.

A sleeve board may be built 4" above the ironing board. Both the ironing board and the sleeve board should be padded with two thicknesses of heavy material and covered with removable fitted covers. The outlet for the iron should be placed above the sleeve board or at the side of the board at a height of 48".

A clothes rod on the inside of the door of the ironing cabinet or on a nearby wall could provide a place to hang freshly ironed garments to dry before they are put away. A towel bar for hanging damp pressing cloths and a shelf for sponges and a sprinkler could also be attached to the cabinet door.



SEPARATING CENTRE



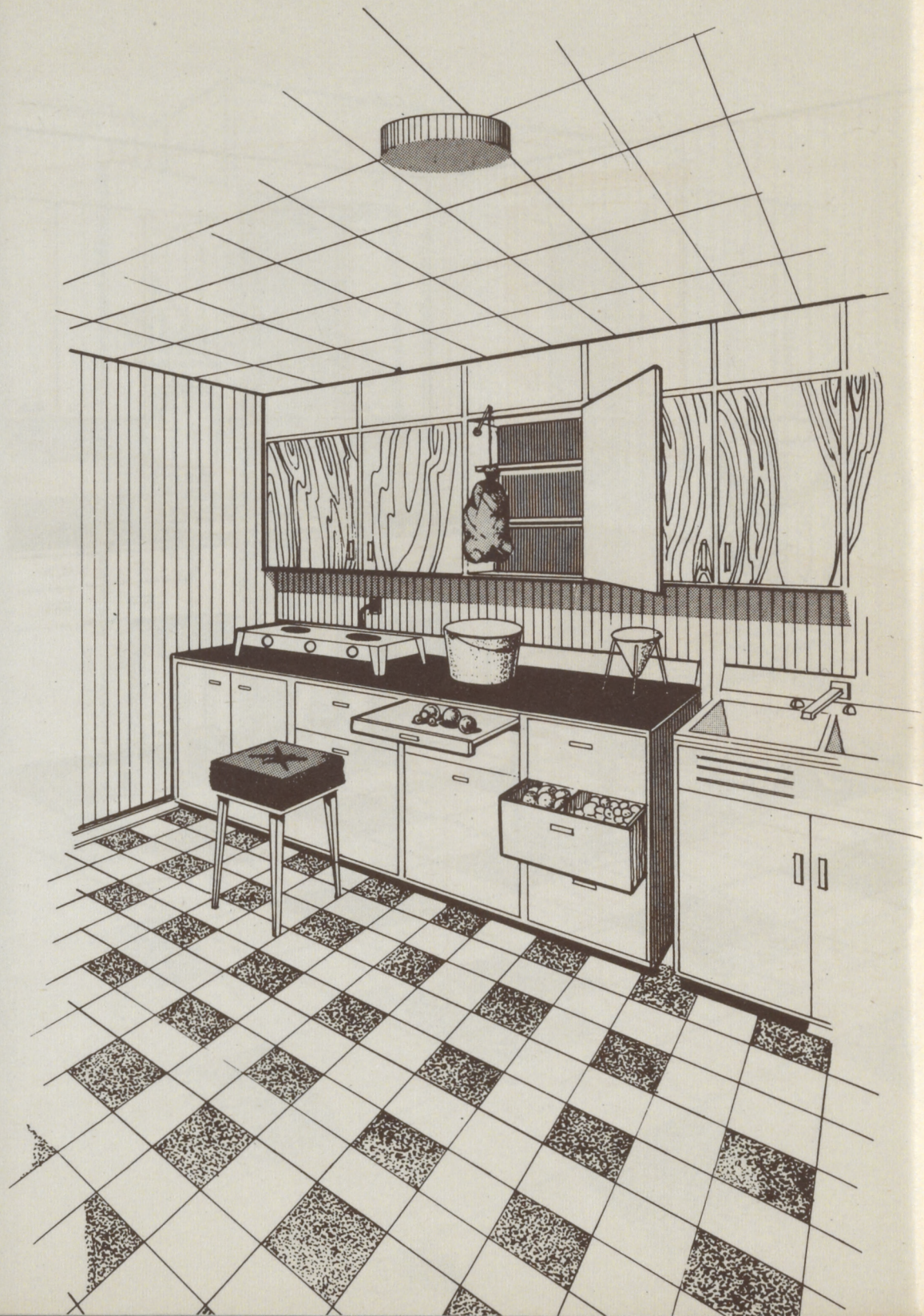
Many families, not engaged in dairy farming, keep enough cows to provide a family milk supply. Unlike the dairy farmer who sells milk commercially, the farmer who separates for home consumption seldom builds a special milk house. Space in the utility room must be set aside for this activity.

The utility room on the main floor is most convenient for the separating process. The centre should provide ample storage space for pails, bottles and other equipment related to cream separating. The utensils and vessels should be stored on easily cleaned, well ventilated shelves in the base or wall cabinets.

The separator should be located near a source of water (the sink or laundry tubs) as sanitation is essential. A refrigerator, ice box or dumb waiter could be incorporated into the centre. The dumb waiter would enable direct connection to a cool storage space in the basement, or better still, the dumb waiter itself could be built in conjunction with an ice well.

CANNING CENTRE

The canning or food processing centre could be combined with the laundry centre. The sorting counter could then be used for the various processes involved in canning. The base cabinets should provide storage for fruits and vegetables and for the larger preserving utensils; the overhead shelves for sealers, wax, etc. A dumb waiter, such as the one suggested for the separating centre (illustrated on page 31) would prove helpful for bringing up empty jars and for lowering the canned produce to the basement storage area. A hot plate and a sink would make this centre complete.

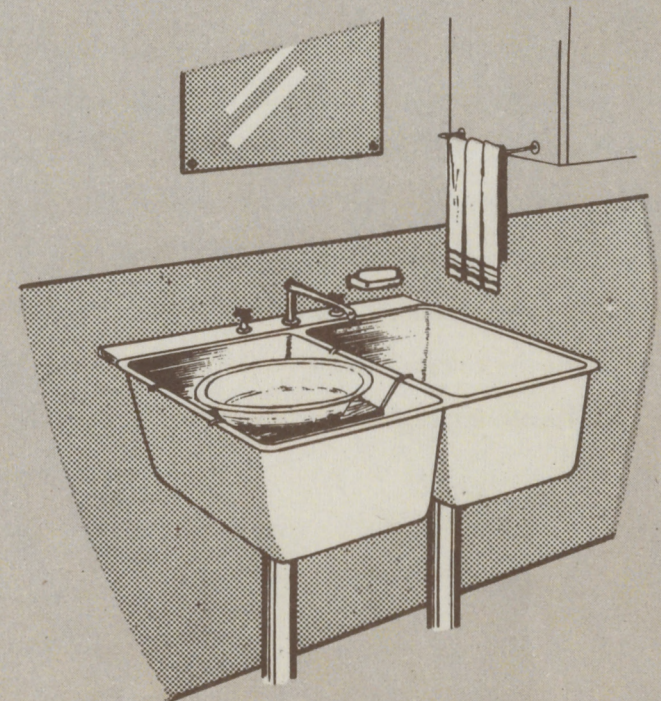


THE WASH CENTRE

The farm home should have a place near the rear entrance where the men can wash. This may be a sink in the utility room or a separate washroom with a wash bowl, toilet and shower.

A storage cabinet above the wash bowl provides a place for combs, shaving supplies, towels, soap, etc. A mirror is also needed at this centre.

If plumbing costs prohibit the installation of a small sink for washing, the laundry tubs can be used as a satisfactory substitute. A rack can be made which will fit over the tubs and which will serve as a base for a smaller wash bowl.



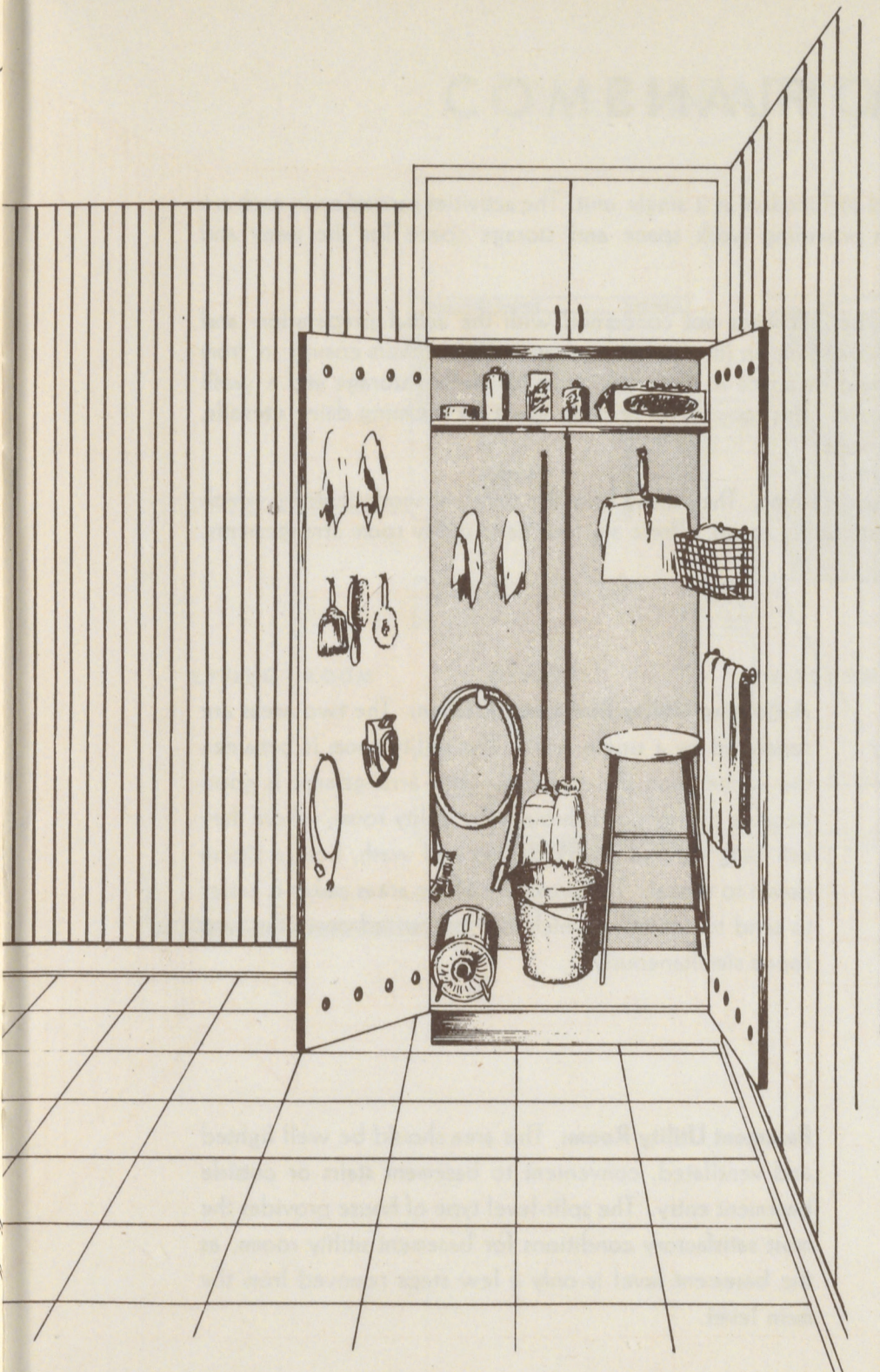
CLOTHES CLOSETS

A closet which will accommodate outdoor clothing should be located near the rear entrance. The inside depth of the closet should be at least 2'-0" so that heavy clothing can be hung on hangers from a rod. The closet should be well ventilated by louvres or openings in the doors.

The closet should be built to the ceiling, with the upper section being used for seasonal storage. If there are children in the family, provision should be made for their playclothes, with hooks, shelves and rods placed at a height which they can reach. Part of the closet may be sectioned into a full length hanging space for adults' clothing; the other part may be provided with shelves for less bulky clothing. Another desirable feature is a wooden rack made of slats, to keep muddy boots and shoes off the floor of the closet. This rack should be removable so that the floor underneath may be cleaned.

If closet space is not available, hooks and shelves may be installed just inside the entrance to the house. Provision must also be made here for storing rubbers and overshoes.





CLEANING CLOSETS

A good location for the cleaning closet is off the rear hall near the kitchen where it is readily accessible from other rooms. In determining the dimensions and arrangement of the closet, consideration must be given to the articles which will be stored in it. Space should be provided for brooms, mops, brushes, vacuum cleaner, cleaning supplies, etc. If a portable ironing board is preferred to the built-in design (page 58) it may be stored here with other ironing equipment.

The floor of the closet should be raised 2" above the room floor to keep dust from coming in under the door. Hooks for hanging small mops and brushes could be arranged on the door. These should be placed so that each article hangs free and can be reached without moving another. Screw eyes in the handles enable the articles to be hung on hooks.

The shelves should be narrow so that frequently used articles can be easily seen and reached. Seldom used articles and reserve supplies may be stored on the top shelf. Dust cloths may be kept in a wire rack on the door.

The vacuum cleaner should rest flat on the floor. If a tank type cleaner is used the hose should be hung over a hook on the wall. The small attachments should be kept in a bag or box.

Ventilation is furnished by openings in the top and bottom of the door.

GENERAL UTILITY ROOM PLANS

KITCHEN — UTILITY RELATIONSHIP: These two rooms should be planned to function as a single unit. The activities carried on in each are closely related and the purpose of the utility room is to support the kitchen in providing work space and storage space for the many and diversified activities which are carried on in the work core of the farm.

The utility room would accommodate separating, preserving, laundering and other activities not concerned with the actual preparation and cooking of food. It might also provide for sewing, office work, hobbies, etc., depending on its plan arrangement. The workers coming in from the fields or barns must change work clothes and wash before meals. There should be space in the utility room for clothes storage and a wash bowl. A shower and toilet would provide a convenient and complete arrangement. This room might provide space for cleaning dairy utensils, dressing poultry, candling eggs and dressing meat if this work is done on a small scale.

The plans illustrated on the following pages have been taken from actual farm house designs. They show how the different work centres, which have been discussed on the preceding pages, may be arranged to provide adequate utility rooms. There are four basic utility room arrangements.

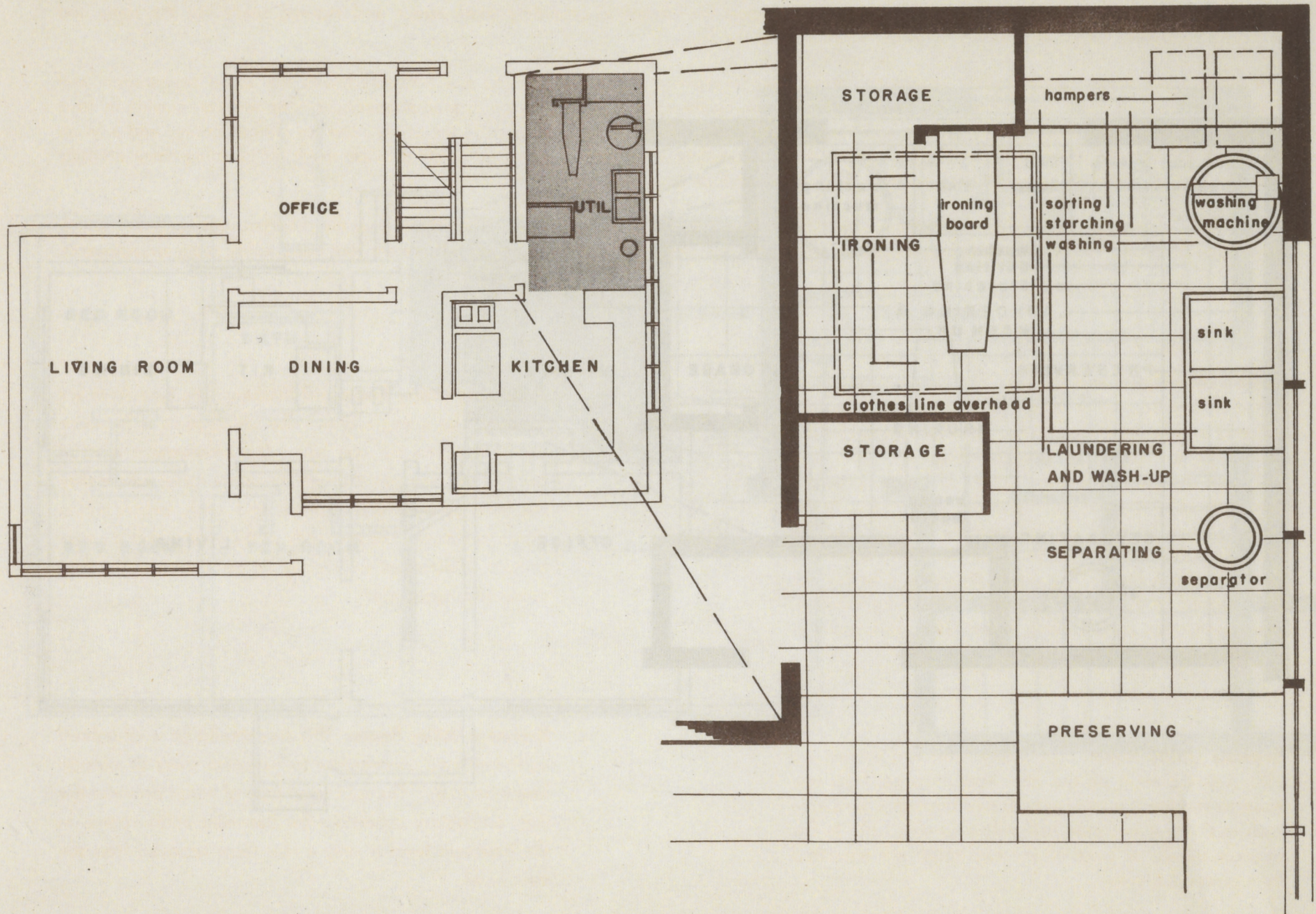
Combination Utility and Kitchen: The two areas are combined to form one large room. Several different arrangements of equipment are possible. Some people prefer the double-U, in which the kitchen equipment forms one "U" and the utility room the other "U." This provides two distinct spheres of activity in the same room. In the layout shown on page 65 the washing machine, laundry tubs, clotheslines and ironing equipment are located at one end of the room. The cream separator is beside the "U" formed by the kitchen cabinets. Separating, canning, preserving, etc., are all done in the same work space as are the tasks of food preparation.

Separate Utility Room: The utility room and kitchen are two separate areas on the main floor. To get from one room to another it is necessary to pass through a third area such as the rear entrance hall, office or stair hall. In the example shown on page 66 the two rooms are separated by a central hallway.

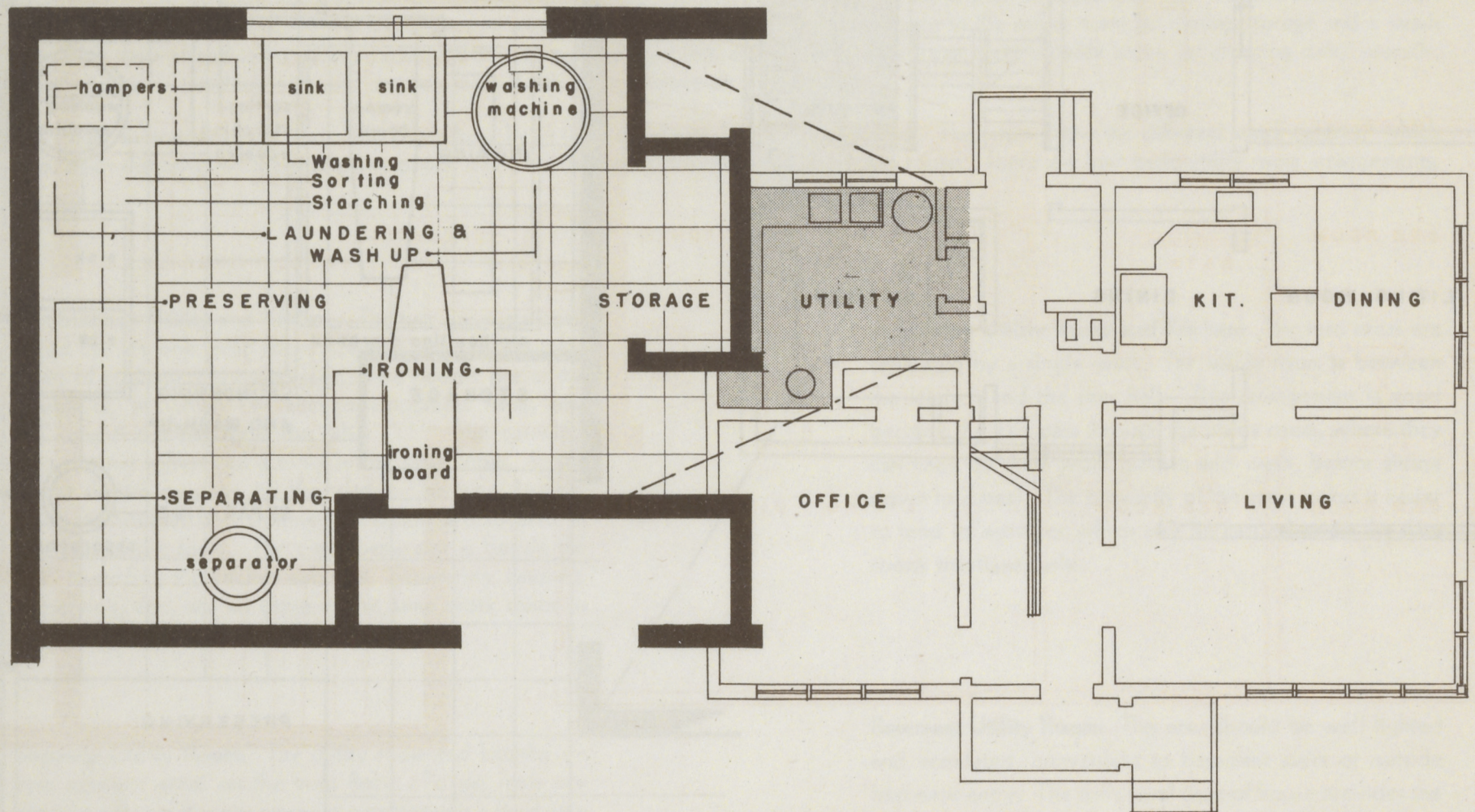
Adjoining Utility Room and Kitchen: The two areas are separated by a single wall. The utility room is between the kitchen and the rear hall. This arrangement is good because the men pass through the utility room, where they can hang up their work clothes and wash, before sitting down to a meal. The proximity of the areas makes it easier to tend to activities which may be carried on in the two rooms simultaneously.

Basement Utility Room: This area should be well lighted and ventilated, convenient to basement stairs or outside basement entry. The split-level type of house provides the most satisfactory conditions for basement utility rooms, as the basement level is only a few steps removed from the main level.

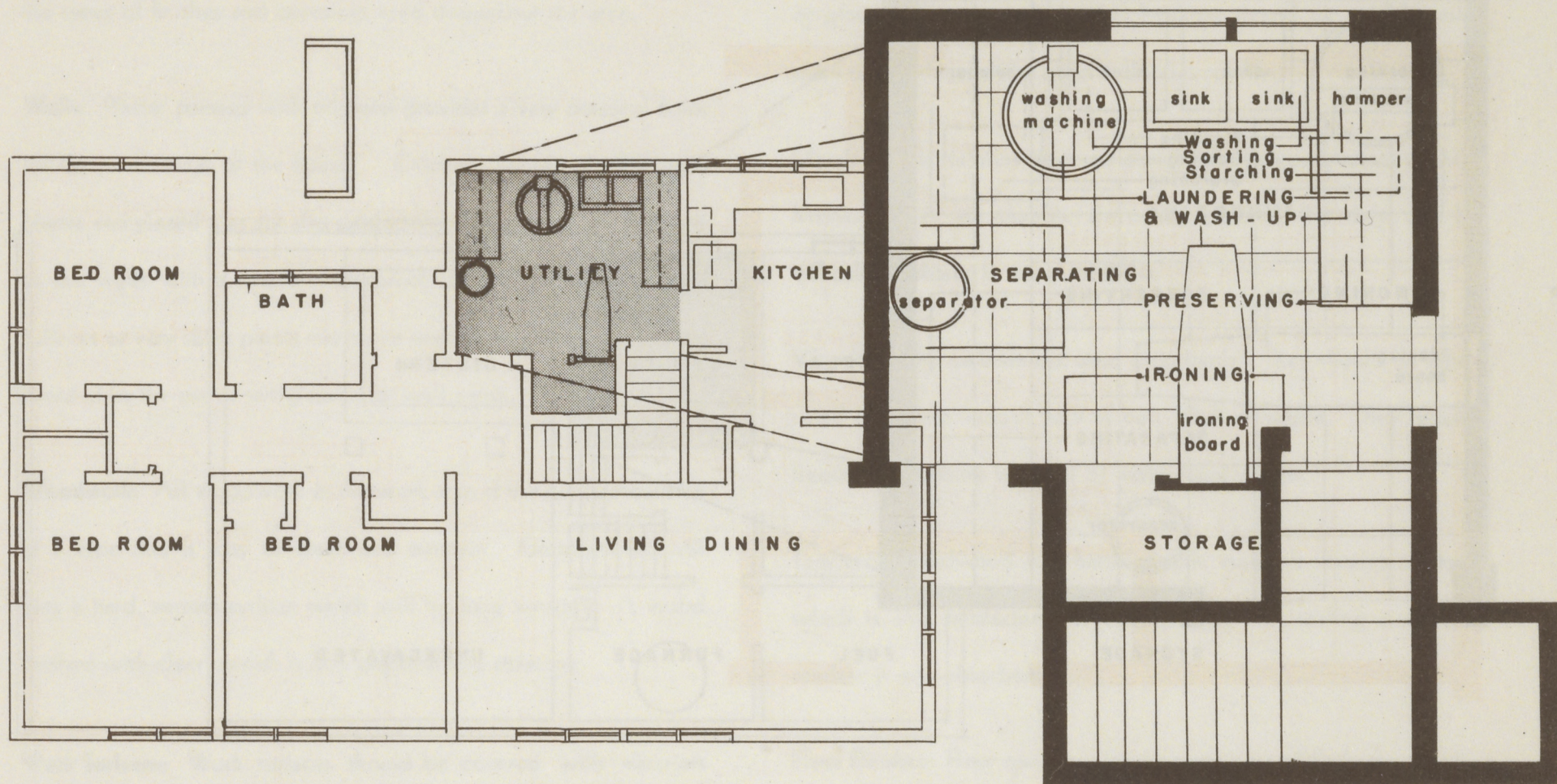
COMBINATION UTILITY ROOM



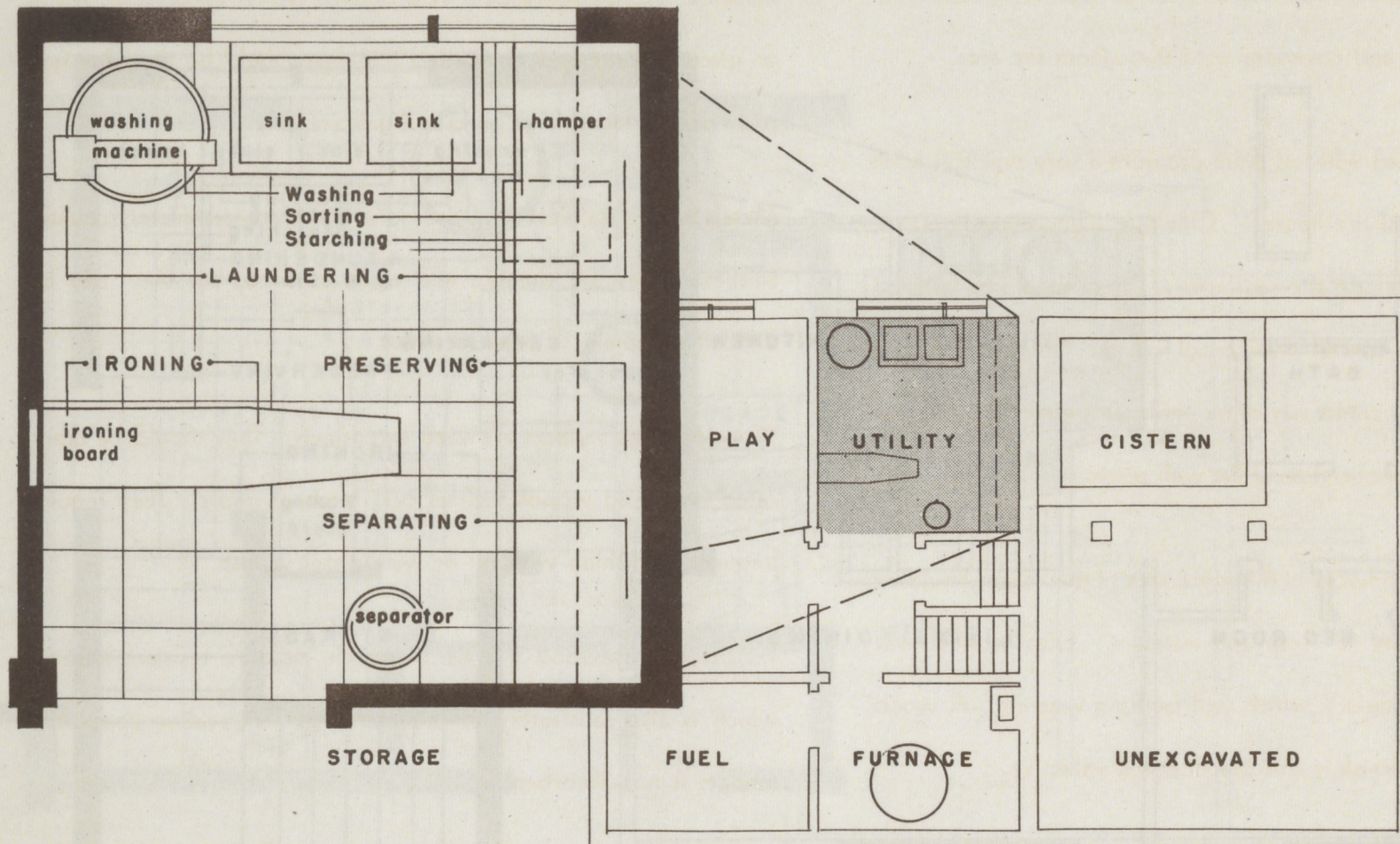
SEPARATE UTILITY ROOM



ADJOINING UTILITY ROOM



BASEMENT UTILITY ROOM



COMPLETING THE JOB

A Clean Work Centre is an Attractive Work Centre: The ease with which a kitchen or utility room may be cleaned depends greatly upon the types of finishes and coverings used throughout the area.

Walls: Plaster painted with oil paint provides a very practical finish for the work areas of the house. Oilcloth, lightweight linoleum, plastic and glazed tiles are also satisfactory. These should be fastened to the walls with a special waterproof cement. Highly varnished surfaces or very shiny paints may cause unpleasant glare. This may be avoided by the use of semigloss or flat wall paints.

Woodwork: All woodwork in the work area of the house should be of a type that is easy to clean and maintain. Gloss enamel will give a hard, smooth surface which will be long wearing. A wood finished with clear varnish is also practical and attractive.

Work Surfaces: Work surfaces should be covered with materials which are durable, non-absorbent, stain-resistant, heat-resistant and easily cleaned.

Linoleum, preferably inlaid, makes a satisfactory finish if it is properly installed. Front edges should be protected with strips of metal, wood or plastic. Patterned or mottled linoleum should be used because plain dark surfaces show marks and stains readily.

Metals such as stainless steel and monel make very satisfactory counter finishes. They are durable and easily cleaned, but they may be difficult to obtain in many localities.

Wooden work surfaces are used extensively. They should be fabricated from hard woods such as oak, birch or maple. They require frequent refinishing with oil or waterproof varnish.

Tempered presdwood is a hard, smooth, moisture resistant material which is also satisfactory for counter tops. A sealing compound renders it non-absorbent.

Floor Finishes: Floor coverings for the work area of the house must be comfortable to walk and stand on, easy to clean and maintain. All floor coverings should be carefully installed over a smooth sub-floor.

Linoleum is available in various thicknesses (gauges). Inlaid linoleum is more durable than printed linoleum because the pattern and colors extend through to the backing. A light color or mottled pattern does not show tracks or soil as readily as a plain surface or a dark surface.

Asphalt tile is moisture resistant and can be laid over concrete floors. Worn or damaged blocks can be replaced. Asphalt tile must never be varnished; a special wax will give it the protective coating desired. Rubber tile flooring has a natural resiliency which lessens fatigue. It may be damaged by grease and oil.

Plastic materials of various types are being developed and used extensively. These appear to meet the regular floor covering requirements.

Tile or linoleum is practical for utility room floors if it is properly laid with waterproof cement.

Ventilation: Inadequate ventilation causes discomfort and fatigue. Proper ventilation may be provided by several methods:

Double-hung, casement or other opening type windows on adjacent or opposite walls will provide cross ventilation.

Doors on opposite walls will allow currents of air to pass through the work area.

A ventilating fan will remove objectionable odors and moisture vapor caused by cooking or laundering and can also be used for regulating the temperature of the work area.

Light: Needless eye strain and fatigue result from tasks which are done without sufficient light. In lighting the kitchen and utility room, consideration must be given to day and night illumination. The sink centre should be placed in front of a window. This arrangement will provide adequate light during the hours of daylight.

Good illumination is not just a matter of an adequate supply of light but it depends equally on the quality of the light provided. What is needed to ensure good lighting is properly designed direct lighting for specific activities along with an adequate amount of indirect overall lighting.

A centre fixture (150 watt bulb and diffusion bowl) will reduce shadows and give good general lighting. Special lighting at each work centre is desirable. A light fixture placed on the wall above and to the left of each centre provides good light. A straight, tubular type of fixture could be installed underneath the upper wall cabinet to focus light on the work surface.

In the non-electric kitchen, kerosene or gas lamps should be placed on a shelf or wall bracket; this arrangement provides a more evenly distributed light than that provided by lamps placed on a table or work surface. A reflector placed behind the lamp will increase the degree of illumination.

Another factor which affects the amount of light is the color and finish of the walls and woodwork. Dark colors and rough textures absorb more light than light pastel colors and smooth finishes.

Wiring: Appliances and lights used in the work centre need to be carefully arranged if they are to be used to the best advantage.

Sufficient convenience and lighting outlets, properly located and easily controlled, are the first requirements.

At least one duplex outlet should be provided at each work centre. These outlets should be located 42" from the floor or 4" to 5" above the counter tops. The usual length of cord on traffic appliances, i.e., irons, electric kettles, etc. is 6'-0". This must be considered when planning outlets for these appliances.

The electric stove will require a special outlet. If the utility room floor is of concrete a three wire plug must be installed for the washing machine. New appliances are constantly being developed and improved so special purpose outlets for such equipment as home freezing units, automatic washing machines and garbage disposal units should be included.

Three-way switches located at the latch side of each door will enable the housewife to regulate the lights when entering by one door and leaving by another.

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